DOCUMENT RESUME

ED 328 533 SP 032 871

TITLE Tomorrow's Schools: Principles for the Design of Professional Development Schools.
INSTITUTION Holmes Group, Inc., East Lansing, MI.
PUB DATE 90
NOTE 121p.
AVAILABLE FROM The Holmes Group, 501 Erickson Hall, East Lansing, MI 48824-1034 ($10.00 prepaid).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *College School Cooperation; Educational Change; *Educational Principles; Elementary Secondary Education; Equal Education; Faculty Development; Higher Education; Inservice Teacher Education; *Preservice Teacher Education; School Restructuring; *School Role
IDENTIFIERS *Holmes Group; *Professional Development Schools

ABSTRACT

The professional development school is an effort to invent an institutional coalition that will bring together universities, schools of education, and public schools. This report urges the creation of a relatively small number of schools as professional development schools (PDS), designed to be the focus of professional preparation, school research, and the improvement of teaching. Six principles are offered on how PDS should organize themselves: (1) teaching and learning for understanding; (2) creating a learning community; (3) teaching and learning for understanding for all children; (4) continuing learning by teachers, teacher educators, and administrators; (5) thcughtful long-term inquiry into teaching and learning; and (6) inventing a new institution. The rationale for creating a network of PDS and the relationship of these schools to educational reform are discussed. The report concludes by suggesting what Holmes Group universities should do to make a start in establishing PDS. (IAH)

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A Report of
The Holmes Group

TOMORROW'S SCHOOLS:

PRINCIPLES FOR THE DESIGN OF PROFESSIONAL DEVELOPMENT SCHOOLS

Primary support for the Tomorrow's Schools project, including the publication of this document, was provided by the Ford Foundation and Holmes Group member institutions. The opinions, conclusions, and recommendations expressed herein are not necessarily those of the Ford Foundation.

Copies of *Tomorrow's Schools: Principles for the Design of Professional Development Schools* may be ordered from:

The Holmes Group
501 Erickson Hall
East Lansing, MI 48824-1034

Single copy (prepaid): $10.00

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Printed in the United States of America

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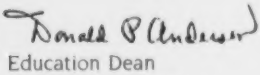
Signatures



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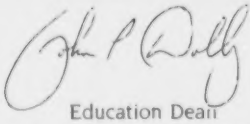

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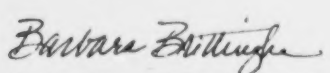

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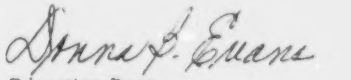

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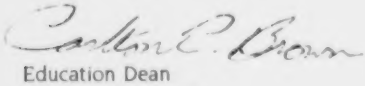

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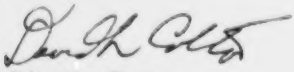

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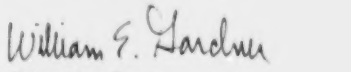

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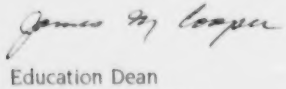

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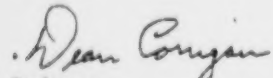

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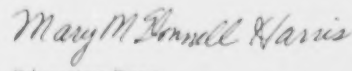

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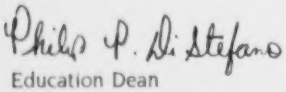

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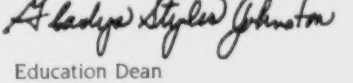

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University of Tennessee-Knoxville

At the 1990 Annual Business Meeting, the Holmes group membership unanimously endorsed the principles of design for Professional Development Schools. The institutional commitment of Holmes Group members to these principles is affirmed by the signatures of the Executive Board

The Writing Group

The voices expressing the ideas and recommendations in this report are many: innovating school and university faculty and other citizens working on the reform of education throughout the United States. Their names are listed in Appendix A. Those responsible for culling and summarizing themes from the discourse and for writing this report are:

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Preface

We began this work fired with a simple concern for the quality of teacher education in America. The more we talked, the more we realized that teacher education represents a mesh in a very wide net that stretches from the universities to the schools and out to the wider society. Pull on one part of the net, and you end up tugging on all the other parts too. The idea of a Professional Development School—a new kind of educational institution that will be a partnership between public schools and universities—reflects our fundamental commitment to teacher education; but of necessity *Tomorrow's Schools* ranges over many parts of the net.

"We" are the members of the Holmes Group, a consortium of nearly 100 American research universities committed to making our programs of teacher preparation more rigorous and connected—to liberal arts education, to research on learning and teaching, and to wise practice in the schools. Our commitment serves a deeper purpose. We incorporated in 1986 "*to enhance the quality of schooling*, through research and development and the preparation of career professionals in teaching."

The Holmes Group manifesto, *Tomorrow's Teachers*, published that spring, spelled out the specific goals we thought were necessary: "Make the education of teachers intellectually sound. Make better use of differences in knowledge, skill, and commitment among teachers. Create relevant and defensible standards of entry to the profession of teaching. Connect schools of education with schools. Help make schools better places for practicing teachers to work and learn."

We were critical of the way our universities educate teachers but optimistic about what we can do if we can create partnerships within our universities and with the schools in our communities. We recognized that schools and colleges of education cannot continue to emulate disciplinary departments in universities, largely ignoring the field of practice. Rather, a school of education must shape a separate identity as a professional school with strong roots in reflective practice and strong bonds to the public schools.

We believe these bonds between universities and schools should be a partnership among peers. Practicing teachers, administrators, teacher educators, and administrator educators should work together to make fine schools for children that will also be

realistic, challenging, and supportive settings for the field studies of prospective teachers and for the rising professionalism of practicing teachers. More than that, in these schools university and school faculties should collaborate in research about the problems of teaching and learning so that exchanges of expertise can refresh and even reshape the curriculum and teaching at the university and the school.

The partnerships envisioned in *Tomorrow's Teachers* were to be formed around the following principles:

"*Reciprocity*, or mutual exchange and benefit between research and practice;

"*Experimentation*, or willingness to try new forms of practice and structure;

"*Systematic inquiry*, or the requirement that new ideas be subject to careful study and validation; and

"*Student diversity*, or commitment to the development of teaching strategies for a broad range of children with different backgrounds, abilities, and learning styles."

In 1988, with the Ford Foundation's funding, the Holmes Group began to prepare a second report, based on those principles. This report, *Tomorrow's Schools*, was to argue the purposes and to outline the dimensions of the tasks of connecting a university-based education school to one or more public elementary and secondary schools so as to create a new educational institution—a "Professional Development School." This is the report you have in your hands.

The report began as a series of conversations among leading school and university faculty members from across the nation. Eighteen teachers, administrators, teacher educators, and administrator educators came together July 15–16, 1988 at Michigan State University, the Holmes Group headquarters. For two days they described and discussed the models of learning and teaching that they thought should shape schooling.

About 100 other participants took part in five similar seminars that followed between September and December, 1988. In those seminars the discussants focused on changes needed in the way teachers work and the roles they play in the school; on teaching students with different backgrounds, abilities, and learning styles with equity and efficacy; on schools' relationships with families

and communities; on different styles of school leadership; and on ways to restructure the organization of schools and school districts. The names of the participants in those seminars are listed in Appendix A, "Contributors to the Report."

With detailed notes from all six seminars in hand, each of the five Holmes Group regional organizations held discussions during 1989 among faculty members active in campus Holmes Group reforms and schoolpeople they work with. In what ways would these educators question, redefine, and/or enlarge upon the ideas, issues, and controversies that arose in the six conversations in East Lansing? Similarly, representatives from business, state governments, and national education policy experts were drawn together to critique the emerging ideas and to offer their views on the future structure of schools and work of educators. In the summer and fall of 1989 a report was drafted and critiqued by a committee of the Holmes Group Executive Board and by the Tomorrow's Schools Steering Committee—a national group of school and university faculty members recognized for their ability to envision and affect educational policy and practice in the United States. Finally, the report was reviewed and endorsed—with some recommendations for changes—by representatives of Holmes Group member institutions at their annual meeting January 27, 1990.

In this report, we are promoting an idea. Although every single practice within the ideal package is in successful operation in some form, somewhere, no single Professional Development School such as we propose here actually exists. This does not mean we are talking about something imaginary, but that we must be careful not to confuse principles and vision with some particular building. The principles we propose here have no mailing address.

We advance our vision as the beginning of a process—conversations/actions/conversations/revisions—that will take a long time. Those who want to join in should think of signing up for the duration. We believe that universities, schools of education, and public schools all over the country need to start conversations about long-term directions and prospects for cumulative change and collaborative work—among institutions that have for too long run separate courses. Our expectation is that the conversations will first begin within the schools of

education that take part in the Holmes Group. This document could be the text for those faculty seminars.

Thus, if we had to choose a particular audience for this document, it would be our university colleagues and their colleagues in the schools. This is the Holmes Group talking to itself, we would say.

But we know that the audience for talk of education reform is growing wider by the day. What we have to say may be of intense interest to many in our nation awakened by the crisis of the schools and its threat to our society's future. A busy education reform movement at the state and national levels is finding it hard to maintain a sense of direction. It remains uncertain about fundamental principles. We believe that we identify, reinforce, and clarify essential principles here. We welcome all who listen in. The schools in a democracy are rightly everybody's business.

Most of the time in this volume we are talking modestly of creating a relatively small number of institutions with a special mission centering on the initial and lifelong education of teachers as professionals. We would prefer this report to be read as an argument for efforts modest and particular—limited enough to accomplish, yet important enough to be worth doing. It will certainly be sufficient unto the decade if we can create a thriving network of Professional Development Schools. But our underlying purpose will be thwarted if such schools don't also begin the long march toward worthy schools for everybody's children.

One argument in this report is the decisive importance of the capacity of the local school—as a learning community—to set its own agenda. Another is the futility of the quest for one best system of educating teachers or children. Both these points reinforce our conviction—and our hope—that Professional Development Schools shaped around the principles we set forth here will flourish as a species and add great variety to the ecology of education. One reason for creating them is to promote diversity and experimentation in an educational landscape that often looks flat and monotonous. Rich variety will prove to be a source of great strength in the ensuing conversations among the network of those taking part in this work.

The idea of creating Professional Development Schools offers something vital and renewing. It also gives interested people in schools of education and school districts an opportunity to step

forward and play a leading role in educational reform. We think it's time for educators to help reshape a reform movement that, for better and for worse, often has bypassed the education profession. Instead of reacting to each new hummock on the school reform landscape, we can begin shaping the contexts in which we work. We are the ones to start building tomorrow's schools—today.

Acknowledgments

A project such as Tomorrow's Schools, designed to advance the national discourse regarding the preparation of professional educators in exemplary settings, benefits greatly from the invaluable contributions made by several others. They deserve our mention and expressions of gratitude.

Members of the Tomorrow's Schools Project Steering Committee brought together the range of perspectives needed to develop the school-university connections so critical to better teaching and learning in America's educational institutions. This distinguished group drawn from teaching, administration, teacher education, and administrator education came from across the nation to enrich and advance our thinking about what we were hearing in the seminars, and about what was missing. As the primary advisory group to the Tomorrow's Schools project, they lent their advice throughout the 18-month process. Our work on these difficult issues was facilitated and strengthened by the substance and soundness of their judgment and commentary.

Sam Bacharach	Steven Bossert
Ruben Carriedo	Ivy Chan
Joseph Delaney	Lisa Delpit
Joseph Fernandez	Haven Henderson
Shirley Hill	Susan Moore Johnson
Magdalene Lampert	Deborah Meier
Phillip Schlechty	Thomas Sergiovanni
Henry Trueba	Nancy Zimpher

A core group of the Holmes Executive Board, the Liaison Committee, served in an important conceptual and connecting role. In addition to the Holmes Group President, Judith Lanier, the Liaison Committee included David Colton, Mary Harris, Cecil Miskel, Lonnie Wagstaff, and the Holmes Group's five regional vice presidents—Donald Anderson, Dean Corrigan, Gladys Johnston, Frank Murray, and Hugh Petrie. The vice presidents fostered broad and recurrent discussions of the seminars' major themes, enabling school and university faculty at the local and regional levels to put forth opinions and advice that helped shape the national report.

The roster of seminar participants who shared with us their ideas—in person and/or in writing—is impressive by any standard. We found our major intellectual bearings in the knowledge, experience, wisdom, and creativity of this group of

leading professional educators—teachers, administrators, teacher educators, and administrator educators. We are grateful also to the education policymakers who provided comment and critique on the major ideas and questions we synthesized from the seminars. We thank Susan Fuhrman and the Center for Policy Research in Education for hosting the policy seminar at Rutgers University.

Three individuals deserve special mention. Judith Lanier provided steadfast counsel from the conception to the publication of this report. She recognized the importance of bringing together the several communities of educators whose diverse experiences and perspectives grounded and expanded our understandings. Her leadership and commitment to improve teaching and learning for America's youngsters and their teachers provided focus to our efforts from the very beginning. Edward Meade, Jr., of the Ford Foundation gave early encouragement and counsel as we framed the project, and his acknowledgment of its likely value helped obtain the essential financial assistance from the Ford Foundation. Harry Judge, from Oxford University and Michigan State University, attended all seven seminars, concluding each with unique, questioning, good-humored commentary that made us think again.

We thank several Holmes Group and Michigan State University staff for their able and generous contributions to this project. Eric Weir, for his superb recordings and summaries of the seminar deliberations; Mary-Dean Barringer, for the teacher perspective that she brought regularly to the writing team, and for her general administrative assistance; Joan Eadie, for the planning and coordinating associated with bringing participants to the seminars; and Brad West, for his fiscal and accounting assistance, and for his help in distributing this report. Joanne DiFranco and Jeanette Minkel provided secretarial and conference coordination for the project. Lawrence Cole, graphics coordinator in Outreach Communications at Michigan State, designed the cover and text format, and coordinated the printing of the report.

Finally, we must acknowledge the time and energy given by many faculty members and administrators at Michigan State University, which hosted the seminars and meetings of the Steering and Liaison Committees and the Writing Group. The intellectual and financial resources of Michigan State contributed indispensably to this effort.

Why Professional Development Schools?

The whole Holmes Group effort hinges on a complex set of reforms happening all together: liberal education—that is, deep understanding of the disciplines by teachers and their students; reconstituted, coherent education studies; and clinical studies expertly supervised in authentic, exemplary settings. Where they all come together is in the Professional Development School—in essence, a new institution.

By "Professional Development School" we do not mean just a laboratory school for university research, nor a demonstration school. Nor do we mean just a clinical setting for preparing student and intern teachers. Rather, we mean all of these together: a school for the development of novice professionals, for continuing development of experienced professionals, and *for the research and development of the teaching profession*.

We mean these schools to help the teaching profession in six ways:

- By promoting much more ambitious conceptions of teaching and learning on the part of prospective teachers in universities and students in schools.
- By adding to and reorganizing the collections of knowledge we have about teaching and learning.
- By ensuring that enterprising, relevant, responsible research and development is done in schools.
- By linking experienced teachers' efforts to renew their knowledge and advance their status with efforts to improve their schools and to prepare new teachers.

- By creating incentives for faculties in the public schools and faculties in education schools to work mutually.
- By strengthening the relationship between schools and the broader political, social, and economic communities in which they reside.

As we began in 1988 to work out the idea of the Professional Development School, the Holmes Group was mindful of the long history of attempts to improve schools. We brought together 120 educators from schools and universities across the nation to exchange their experience and ideas in six two-day seminars on their aspirations for tomorrow's schools. (The quotations placed within this text are taken from notes of the conversations in those seminars.)

The long struggle to make teaching a respected profession inspired and sobered the seminar discourse. The participants commented on the work of thoughtful progressive educators, who insisted on studying children and pedagogy, who gave us classic examples of inspired classroom teaching, and who laid the foundations for educational psychology. Seminar participants were mindful of the movements to establish laboratory schools in universities, and other efforts to draw universities and schools together. Teacher education has its heroes and great moments, and these were recognized.

The seminar participants advised that in conceiving the Professional Development School we build on the university-based curriculum efforts of the 1960s and their attempts to bring the best minds of the university to the task of improving the curriculum of the schools. Build on the concerns that brought the revolution for racial equality to American education, they said. Draw on the best reform experience of recent decades and on the examples of teachers whose work they described or whose classrooms we had visited.

We do not flatter ourselves that we have something completely new to offer American education. The Professional Development School envisioned in this report resembles the laboratory school movement in some respects. In other ways it recalls the curriculum reforms of the mid 1960s. But it departs from the past in two directions. First, the Professional Development School is an effort to invent an institutional coalition that will bring all the required forces together—universities, schools of education, and

public schools. And second, it promises to work on the problems of teaching over the long haul—as long as several generations of teachers. This combination of institutional support and a commitment to the long haul might have made a big difference for any of the earlier reform movements and ideas we have cited. All of them lacked institutional support and staying power.

In addition, we have powerful ideas—to create ambitious learning communities of teachers and students that are at the same time centers of continuing, mutual learning and inquiry by prospective teachers, experienced teachers, administrators, and education and liberal arts professors. We think our efforts to build inquiry into such coalitions and to do this over time are in fact something new under the reform sun.

Schools and wider publics

Continuing pressure for education reform is exerted by a pervasive public worry about the relationship between schools and the broader society. Corporate leaders worry about whether the schools can educate young people to succeed in jobs that will require a high level of collaborative decision making and understanding of complex processes. Intellectuals worry about the erosion of citizen participation in basic democratic processes and whether schools are teaching students core American values and the fundamentals of our government. Parents worry about whether schools give their children a fair chance to learn what they need to get ahead and be happy.

At the heart of democratic life is acceptance of uncertainty and the personal. The school should be an area of uncertainty. The goal is to learn to live with uncertainty, to live with it productively. And always there is a relationship with people.

These worries are expressed against the backdrop of social, economic, and cultural conditions that are radically different from

the way they were when the worriers went to school. The changing structure of the family, the changing composition of our population in age, ethnicity, and income level, the changing demands on the skilled work force, the growing political and economic interdependence between the United States and other nations: All are factors that profoundly influence society's demands on and provision for public schools.

In the past, American public education has taken a mainly reactive posture toward such community concerns. Public schools almost always respond to whatever is the crisis of the moment, but in responding, they often confirm that they did not anticipate it. Professional Development Schools must be laboratories where astute people from universities and schools form alliances with the broader community to anticipate solutions to emerging social, economic, and political concerns. Just as Professional Development Schools should be places where students and teachers work at the outer edges of their expertise, so too should they be places where educators and community leaders work at the outer edges of the educational and social problems facing children.

Both university and school teachers should have an exhilarating 'whitewater' feeling of working at the edge of their knowledge, being engaged in a new kind of work.

Professional Development Schools and education reform

The conversations in our seminars shifted frequently from Professional Development Schools to the general topic of education reform. Some of what this report has to say bears on the question of school reform more generally. But this report is not urging a way of reforming all schools. The reasons are threefold. First, Professional Development Schools will assume some responsibilities—notably the preparation and induction of new teachers—that are simply not part of most schools' mission.

Second, the reform of American education—however necessary—is a broader, more ambitious enterprise than we in the Holmes Group can possibly accomplish. We are, after all, urging the creation of a relatively small number of schools designed to be the focus of professional preparation, school research, and the improvement of teaching. Third, some of the ideas that are tried in Professional Development Schools may not work, and hence shouldn't be the basis for reform of schools more generally. So one must be careful to distinguish the agenda of this report—the creation of Professional Development Schools—from the broader agenda of educational reform.

The Holmes Group doesn't have any business telling the community what kind of schools it should have, but it does have a right to say how teachers should be prepared.

Professional Development Schools are, however, related to education reform in a deeper, more systemic sense. Past efforts at school reform give little cause for optimism about the current school reform agenda. We are again in the middle of a bustling era of school reform that may vanish without a trace. "New York City has tried every single good educational idea—once," is how one seminar participant put it. Scholars have observed that school reformers have never had difficulty creating small islands of the ideal or even sustaining such small experiments for relatively long periods of time. Much of what we would like to see is happening now: in the classrooms of isolated teachers, in schools inspired by principals who are lone entrepreneurs, in universities and colleges of education where a few maverick professors always turn up. The Lone Rangers may always be with us, but we think it is time to settle the educational frontier and build communities of practice and inquiry that will endure over time. The main problem of education reform is that fundamental changes in the conditions of teaching and learning seldom take hold beyond these outposts. An irony of education reform is that during certain periods of history "restructured schools" have

been everywhere and nowhere at the same time. Public schools easily deflect or co-opt the best efforts of school reformers.

Professional Development Schools are a self-conscious attempt to solve this problem. They are an attempt to institutionalize the development of new knowledge and practice so that educators' best ideas don't end up in isolated islands of exemplary practice. Professional Development Schools will develop new visions of teaching and prepare practitioners who can implement these visions. They will represent long-term arrangements between universities and school systems, rather than isolated atolls of good practice. Over time, they should produce a more responsible way of introducing new ideas into all schools.

The discussions underscored our initial conviction that many different types of Professional Development Schools will be needed in many different settings. *Thus this report is a challenge—a call to action—rather than a template for a single conception.*

I don't want us to talk about a Professional Development School that will be one structure for the profession. That makes me nervous. I'd rather think of it being an enabling setting, a loose nest where ideas can be tried out.

What are the ideas?

In the chapters that follow, we lay out six principles as to how a Professional Development School should organize itself. We offer these principles as starting points for conversations and negotiations among university and school faculties embarked on a mutual endeavor. The principles are not heavily prescriptive; neither are they lightly held. They reflect the distilled experience of some 120 first-rate educators who thought long and seriously about what they could contribute to the invention of a new institution dedicated equally to the learning of its students, student teachers, and school and university faculty.

Principle One. Teaching and learning for understanding. All the school's students participate seriously in the kind of learning that allows you to go on learning for a lifetime. This may well require a radical revision of the school's curriculum and instruction.

Principle Two. Creating a learning community. The ambitious kind of teaching and learning we hope for will take place in a sustained way for large numbers of children only if classrooms and schools are thoughtfully organized as communities of learning.

Principle Three. Teaching and learning for understanding for everybody's children. A major commitment of the Professional Development School will be overcoming the educational and social barriers raised by an unequal society.

Principle Four. Continuing learning by teachers, teacher educators, and administrators. In the Professional Development School, adults are expected to go on learning, too.

Principle Five. Thoughtful long-term inquiry into teaching and learning. This is essential to the professional lives of teachers, administrators, and teacher educators. The Professional Development School faculty working as partners will promote reflection and research on practice as a central aspect of the school.

Principle Six. Inventing a new institution. The foregoing principles call for such profound changes that the Professional Development School will need to devise for itself a different kind of organizational structure, supported over time by enduring alliances of all the institutions with a stake in better professional preparation for school faculty.

These principles are laid out in five succeeding chapters. A conclusion suggests what Holmes Group universities should do to make a start.

Teaching for Understanding: In a Community of Learning

Teachers, professors, school principals, and superintendents came to East Lansing from across the nation in July, 1988 to begin the dialogue—six two-day seminars—from which this report is drawn. They reaffirmed our nation's traditional and continuing purposes for schooling—academic learning, economic progress, and active citizenship for a democracy.

They insisted, however, that if these traditional purposes are to be fulfilled in the new century, there will have to be radical changes in how children learn in school and how we teach. We can sum up a complex discussion by simply saying that all of our schools are going to have to do a better job of helping children to use their minds well. All children—not only the most privileged and most accomplished, but the most needy as well. For this to happen, our schools will have to become better communities.

So our first two principles are intertwined:

1. Lasting learning—the kind that allows students to go on learning for a lifetime—is what we call teaching for understanding.
2. Such learning will take place only in schools and classrooms that work as communities of learning.

1. Teaching and Learning for Understanding

Education's basic goal is the cultural progress of individuals and society. Good schools teach many things, including the habits of

mind and character needed for making a living and making a good life. The deeper, generic task of education is teaching students how to *make* knowledge and meaning—to *enact* culture, not merely acquire it.

The critical question is not 'What does the teacher do?' It's 'What does the teacher get the kids to do?' Basically we're talking about teaching as an act of leadership. Teaching is essentially helping people get excited in a subject area, which leads them to engage in the big ideas, the cultural ideas.

By culture we mean complex things, but nothing very arcane. We mean the shared meanings developed over time by particular groups of people out of their common life and the necessity for coping with the world. Schools, of course, have a special responsibility to help students develop traditional academic culture—the organized meanings embedded over time in the great stories and the learned disciplines. We strongly support this traditional academic role of schools, with two important qualifications.

First, we want schools to help students to take an active, rather than a passive role. Curriculum needs to become a way of living and acting to make sense of experience. The richest stories of the society and the organized academic disciplines offer access to such treasures as: a familiarity with the past, the capacity to use complex symbols with purpose and power, the ability to make new meanings, the power of the imagination, and, in particular, the power of critical thought. Nowadays a good education helps students develop a view of the adequacy of the reigning visions of culture and its canon. Ultimately, education prepares students who can argue such matters and even transform the reigning ideas of culture itself. From the start, good schools help their students to become more appreciative and critical of culture in several senses beyond academic culture—to take pride in their

own culture and to become critics of popular culture, for example. To reach this kind of cultural understanding—and to enact it in classrooms—teachers will need a much better education in the arts and sciences than they now are getting. Arts and sciences faculty must join in the work of educational change.

Our second qualification of the traditional task of teaching academic culture to students involves yet another sense of the word "culture." Schools need to do a much better job of building on students' own cultural capital. Teachers will have to become closer students of their own students. A pluralistic democracy whose schools are full of immigrant children and children from many peoples and races requires teachers prepared to become more thoughtful about "culture" in another sense: cherishing and building on the webs of meaning and value and community that students bring to school. We see the schools as building bridges between traditional academic culture, the culture of students, and world culture.

'Acknowledging diversity' means binding the rich mosaics all together.

The heart of teaching for understanding is the creation of learning community. By "understanding" we mean learning that equips you to go on learning for a lifetime: the complex, internalized, public and private scaffolding of information, insight, and experience in any field that can lift you to the next question, and get you started on it. Such learning emerges best from an active process of constructing public and private meaning in a community of discourse. This is the link between understanding and community. Teaching for understanding won't happen in classrooms where students sit silent and passive. Through participation in discourse, teachers help students construct more adequate meanings. They learn, for example, that not all understandings are equal. Some are more helpful than others in making yourself at home in the world, in specifiable ways. The kinds of meanings we associate with the public display of evidence and logic offer powerful ways to specify such helpfulness. Certain (not all) of the most thoughtful and worked-

out meanings in human tradition are represented by the communities of discourse that have evolved over time into what we call the disciplines. To understand a subject means in effect that you have been initiated into a community of discourse—that you take part in the conversation. Ultimately the conversation spans the centuries, but for most students it first becomes real only here and now in the circle of faces in this class, third-period American history, with the radiators banging.

We use the word "conversation" here both literally and metaphorically. Literally, because learning to transact the lingo in your own voice is in fact a key aspect of understanding in any field. Metaphorically, because the "conversation" can take shape in silence or—more powerfully, sometimes—as direct experience. The student exploring the qualities of soap bubbles in a good science class is taking part in a conversation—a dialogue in the mind—even when few words are exchanged. So is the student working alone on the piece of sculpture. So is the student whose senior spring project is thoughtful work in a veterinary hospital.

The view that lasting and powerful learning involves the mastery of discourse and active participation in a community is the basis for much fine teaching. The community of discourse is the means by which good teachers turn into lifelong voices inside the heads of their students. And its absence illuminates why, lacking learning community, too many of our classrooms are going through motions—the fragmentary English exercises, for example, that bear no relation to live speech uttered and listened to for a living purpose. The transactions of significant experience—the connections made in a human community—are the roots of all powerful learning. We ignore them at the price of waste and boredom.

Conversation, experience, interpretation, criticism, engagement, voice, participation, purpose. These are some of the words we link with teaching for understanding. Recent work in cognitive psychology argues that knowledge is an active and participatory affair. Such psychology is saying what good teachers have known for a long time. It's not enough just to tell students things—though there is nothing wrong with a good lecture. They also need to learn how to interpret what they learn, and to relate it to what else they know, and whenever possible to have some experience of what is being taught. They need to take the new information and fuse it with more conscious and refined meanings.

What we are learning from cognitive scientists is, first, that people are inveterate constructors of meaning: They're going to make sense of it in some way. Second, people make sense of the environment differently in learning different content. Third, context causes people to make different sense of things than they do in school. And fourth, within all of that, different cultures will value these things in different ways.

Learning at all levels is an active process, in which children construct and reconstruct knowledge as they go along. To know something is not only to take in the bare information but to interpret it and relate it to other knowledge. Powerful learning, then, comes about when students can develop a mental scheme in which to frame their knowledge and then go on to make fresh knowledge and an even newer mental scheme. Much current cognitive research holds that there is no way to make real use of knowledge other than creating a personal intellectual apparatus that holds information together and allows the learner to play with it. Real knowledge is purpose-built, site-built, and infused with the learner's sense of purpose.

It is a severe understatement to say that little of this view informs educational policy or practice today, although the teaching of good teachers everywhere confirms its usefulness. Conventional wisdom and much teaching practice assume the contrary: that learning is the accumulation of facts and isolated skills, and that basic skills must precede in time the exercise of more complex understandings. First the basics; then the complex literacy of discussion, interpretation, and criticism. If the examples of thoughtful practitioners and the theories of the cognitive psychologists are right, acquiring facts has to march hand in hand with deep thinking, wrestling with the facts. Concepts and facts define each other. They are the foreground

and background of serious thinking, and are therefore inseparable. *Our seminar participants insisted that the separation of "basic" facts and skills from more complex and ambitious learning is a fundamental mistake.* At every stage of learning, the students who enact complex meaning are those who learn the deepest kind of literacy—who can interpret a text imaginatively, for example, or adapt a given mathematical approach to a new context.

But if we say that this is cognition and this is affect, or this is basic and this is higher order, we just have the wrong model. You can't get one without the other. You don't get the basics without the advanced.

The disciplines: "clubs" students join

This view of teaching for understanding also meshes with much recent thinking on the nature of the academic disciplines themselves. Literacy can be thought of as the series of clubs we want our students to join—the science and math and writing and art clubs. In joining they take part in the long human conversation that includes the dead, as well as the living, and will go on into a future we can hardly imagine. The disciplines are the products of generations of work in the smaller conversations or learning communities—the club called mathematics, the club called science, the club called literature. We tend to think of the disciplines as a product—embodied in a particular scientific advance or a textbook, for example. But it would be closer to the mark to think of them as long-running conversations. The knowledge they represent is dynamic, not static, fluid, not solid, and very much a human creation. Our students will remain passively ignorant—will not understand—if we teach them the products of these communities alone—the final codified results but not the process of inquiry, dialogue, and criticism. This is not, our participants emphasized, an argument against knowledge and content. They, too, were alarmed at the evidence that U.S. students today don't know enough simple math and science, so

little American history and international geography. But the remedy for this ignorance is not memorizing lists of facts or even passages from the Great Books.

Expertise is more a matter of working at the limits of your competence than it is spouting well-learned information. Students get a sense of 'Well, I don't understand that,' but that's not at all a defeating notion any more. It's very much 'So! I'm working at the limits of my competence. And that's where experts are forever moving, and that's how they gain new knowledge.' That's an idea that's very powerful.

Knowledge in the disciplines is, like all other cultural understanding, imaginatively constructed, not passively acquired. Sophisticated observers of the disciplines see them as communities of discourse in which knowledge is made and remade. The conversation about chemistry goes on, but the field is not what it was thirty years ago. Neither is English or mathematics. They are shifting human creations, fashioned by communities of scholars over time. The political upheavals in our own lifetime—the revolutions in the historic status of women and people of color, for example—are a powerful reminder that ideas and intellectual conventions change. (Revision in scholarship and other fields can, of course, take the shape of a return to some new version of tradition.)

The idea is not to make graduate students out of third graders, in some parody of the university-based curriculum reforms of the mid 1960s. But we do want to equip third graders to live in a world in which knowledge and meaning change, as well as remain the same. Teachers need to know how to help students learn this intellectual balancing act. We need to educate our students to take part in the big conversations; some endure over time and

remain the same; others change with the speed of rocket ships. Teaching for understanding has to embrace both the organized traditions that are the product of the past and the process of imaginative meaning-making that can remake tradition if necessary—that can make it new. Knowing how to draw on tradition and how to make it new are the methods our students will use to stay at home in the world.

The kind of teaching we need does not require exceptionally brilliant or creative people. What is important is that teachers be engaged, that they observe their students, follow them closely, find out what excites them, and then help them to do that. You will know you have been successful if students leave school after 10 or 12 years with a passion for something.

Learning stories that matter

Teachers have long been the storytellers of the society. In one way or another, they tell important stories embodied in learned disciplines and cultural traditions. They are not successful unless students can go on to make the stories their own, sometimes telling new stories in the process. A good story in any field weaves together disparate elements into a whole that fits together. The narrative form and the logic of scientific analysis are the two fundamental methods by which the human race makes order in the world. Everyone begins with a story, an autobiography; a good education builds on this story to add many others. The challenge of "the classics" now and forever is that the young need to be helped to reread them in light of the problems of their own times and their own concerns. As Walt Whitman puts it, we need to learn to write the poem fresh as we read it.

Our story metaphor has a familiar ring in fields such as English and history and social studies. We want to apply it to math and science and the arts as well. Jaime Escalante not only teaches the logic of calculus to his Advanced Placement students in a barrio high school; he also teaches the legends and myths of mathematics—conveying the heroism of mathematical thinking. There are grand narratives embedded in math and science, too; such great stories help students to fit things into coherence.

Our students are growing up in a world awash with information. How can they sort out the important from the irrelevant? One way will be learning stories that matter—not only great fiction and poetry, but the central stories of mankind, of the nation, of science, of art. Students need a grasp of narratives that can serve as intellectual and moral frameworks. Without a scaffolding of important stories, we have no way of beginning to judge what things mean. In a blizzard of "sound bites," random news, and factoids, our students need to use stories to find meanings.

The storytelling metaphor for teaching for understanding also underscores the importance of imagination and judgment in the whole process of acquiring any kind of deep literacy. The students need to sense that the story is important; and telling any story well is an exercise in subtle valuing—interpretation, appreciation, and criticism.

A school where children learn

In a school where students are taught for understanding:

- Fifth graders may experiment with pendulums and refine contrasting hunches about timing and length into testable theories.
- The history class on the topic of Reconstruction may learn that history is not only a record of facts, but also the complex moral and political enterprise of reinterpreting the past.
- Tenth graders can understand that there is no one best interpretation of Keats's poem, "Ode to a Nightingale," but rather a multiplicity of meanings. (There is also the difficult understanding that not all interpretations are equally valid.)
- Geometry students can build computer models of alternative solutions to problems.

- The second grade math class can learn that math is not only a set of algorithms to use and memorize, but a way of thinking about order itself.
- All students demonstrate that writing is a fundamental way of understanding yourself and the world, as well as language.

Students in this way learn facts—but also take part in conversations that help them make use of facts to interpret experience and think critically about it. Much learning is hard, dull work. The French verbs need to be memorized. So may the multiplication tables or the Gettysburg Address. A scaffolding of lesser learning and discipline is often necessary on the way to "the big time" of deep literacy. But students persevere by taking part in the community in question—math, science, art, language—as it wrestles with facts and concepts. This active participation is the key.

Key elements in understanding

If we follow the advice of seminar participants, teaching for understanding will have hallmarks such as these:

- A principal stimulus for learning is the student's own sense of purpose and efficacy. Teaching is not simply locating knowledge out there and trying to beam it into students' heads. It involves using students' ideas as a foundation to build on, taking what students already know and think as a point of departure for new learning.
- The "basics" are not just facts but also concepts and relationships: the webbing among ideas. Concepts and facts make up a related background and foreground.
- Students don't arrive at "higher" levels of thinking and discourse by spending years building up the "basic" skills. The separation of skills from the actual practice of literacy has produced a steady diet of splinters with no experience of wholeness and depth. Students' main work ought to be to tackle and explain complexity rather than to complete simple assigned tasks. Young children are doing this all the time, as teachers know who pay them deep attention.
- Teachers possess or pursue complex knowledge of the subjects they teach, because they need to diagnose the mistakes students make and foresee where they can get to in

their understanding—and because the subjects continue to possess a vital interest for them.

- Every child makes a contribution to the classroom using his or her own experience, and learning tends to be cooperative. Students are aware of the importance of participation in discourse and conversation, and teachers help each student find a voice and add talent to the collaborative.
- School work encourages students to see the links between learning and power in a host of realms—not least their own sense of efficacy.
- School work promotes an attitude of wonder and curiosity, stirring the appetite for lifelong learning.
- Kids taste the real stuff of understanding and pleasure along with kid stuff.

A school should embody intrinsic, as well as instrumental purposes, or students will end up missing the point of learning. Why learn to read? Too many of our students get stingy answers. Too few get the fully convincing explanation: because it will make your life rich. Deep understanding is often the result of serious play. Too many of our schools are grim places, with a philistine lack of beauty and wit and playfulness. Teachers who take part in culture themselves learn that children's play is the thread that runs true—and that the teacher's art can be the needle that guides it into the larger fabric of meanings.

Affect and cognition are not antagonistic. You can't have children working as a community of scholars and collaborators without them caring for one another, and you can't have taking charge of your own mind with the emotional aspects left outside of it.

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2. Discourse, Community, and Democracy

Powerful learning for a purpose requires action and participation and reasoned discourse. These are essential elements of life

together in a learning community. Reading programs need to become reading-and-writing-and-talking programs that embody the thick texture of uses and purposes of language in a real community of inquiry, or children will not see the point. You write to say something you want to say to an audience—which can include yourself. You read to find out something you need to know, or for pleasure, and what you learn is enhanced by sharing it with others. No matter at what level you test, you are an illiterate if you end up with nothing to say and no desire to read. You have been taught the bare skills, but not dialogue and participation; scraps of information, but not the capacity to make culture. Liberal learning for all requires that students enact their learning in a community of learning, or it won't be theirs for real.

Thus the second principle to emerge from our seminars reflects a wish to turn in a new direction of history: *The ambitious kind of teaching we hope for will take place in a sustained way only if classrooms and schools are thoughtfully organized to become communities of learning in which all students participate actively.*

In older cultures, most of the best schooling came out of the association of learning with power. When the children of the elites were well-taught, they were educated to think powerfully and for a purpose, to express themselves powerfully and for a purpose, and to make use of their learning to create and criticize new forms of community in which they were strong members. They were taught how to rule and how to make culture. The trouble of course was that their governments served the interests of the few, and traditional academic culture was rationed to first-class passengers.

One task of education in the new century is to democratize the best of this older, elite version of learning. A way to think about this issue is to say that we now aim to make the liberal arts available to all, in appropriate forms, at all levels. Good talk in the second grade about *Frog and Toad* is not generically different from what goes on in a good university seminar on *The Tale of Genji*. Both are, recognizably, a form of the active participation in making culture that we call the humanities.

A rising chorus of voices is arguing that *all* our citizens need a good education as never before. We agree. The reasons are staring us in the face: the changing character of work in a competitive world economy; the new intellectual demands on citizens in a fragile and interdependent planet threatened with

nuclear and ecological ruin; the complexities of the new information order; and the possibilities of a lifetime of learning for all. All these have upped the stakes for democratic schooling.

Along with all these developments there has been a broad revival of hope for democracy in many parts of the globe—a dramatic, world-wide change in expectations about who participates in power and culture. No one knows whether new and old dreams of democracy will continue to flourish in our precarious world, but we in the Holmes Group are willing to wager on popular intelligence.

To some, the broad vision of learning set forth here may sound like a series of frills. Such a view is possible only with very short sight. Cultural progress—the well-rounded development of each citizen—is not the toy department of education. It is the bedrock of future economic, political, and cultural progress in an increasingly complex world. Short-sightedness and bastard pragmatism have not been good for U.S. industry in recent decades. We do not think they will advance education either. We believe that education will have to play a broad role not only in equipping people for jobs, but also in educating citizens to take a hand in the decisions affecting the economic, political, and cultural evolution of a democratic society. This is why there is new urgency to Whitman's old dream of a culture for all commensurate with the political promise of democracy.

We're trying to develop something that's never been done in an organized way, here or in the rest of the world. We have to say in a reasonable tone of voice that we are just learning how to do this. We are inventing it as we go. This is a great new ambition in the history of the world. It will be hard and take a long time.

This has not been a historic aim. It is in fact unprecedented in world history. It will take two or three generations of teachers, which is the kind of time scale we have in mind for Professional Development Schools. Although good teachers have worked in every generation to provide an education for all to match the promise of U.S. democracy, our education system at its outset assumed two tracks: a liberal education for the elites, and training for those who would work with their hands. In one form or another, these old, outworn assumptions still pervade U.S. schooling. We believe it is time to abandon them.

We look at the Professional Development School as a model of learning community that will act as a bridge in the long process of creating a democratic culture. For this to happen, teachers will have to learn to play an intellectual balancing act. On the one hand, new participants have to learn the rules of the conversation as it currently runs: its texts, its dominant concerns. On the other hand, new voices will contribute new stories and new themes in a process that will eventually transform mainstream culture. In acting as cultural bridges, schools will be wise not to neglect either end—the traditional academic culture or the new stories, especially the stories that arise from children and the life of their communities. Seminar participants argued that schools need to become bridges between the mainstream culture and the lives and cultures of their students. The cultural bridge they had in mind promotes traffic in two directions. Schools should build on the linguistic and cultural capital students bring with them, so that in the end, students can possess both mainstream meanings and the culture of their own community. In doing this schools need to act to strengthen the fragile and threatened webs of local community. Schools fail students if they deny them a passport to the mainstream; they also fail if students graduate with a sense that their own culture is worthless. We should help students see their stories as part of a wider epic that includes the entire human race—a planetary version of the humanities for the new century.

Higher standards for all students will almost surely spell higher rates of failure for the slow and the different unless our schools become more inclusive communities. A community of learning has the potential to turn rigorous notions of understanding into maps of available new experience for children, rather than a new set of hurdles.

Children with special needs

We pointed to a link between the quality of community life and realistically high expectations for all students. This link is particularly important for the students who may prove to be the biggest challenge for Professional Development Schools: children with special needs, especially those with severe needs. The legal and bureaucratic struggles for the educational rights of such kids have often created barriers to creating good learning communities for them. The reader may sense a jump if we move from celebrating the arts and sciences for all to a look at the first groping efforts at painting on the part of a girl with cerebral palsy. If our ideas about the generic qualities of learning in a community hold up, there really isn't a jump. A definition of learning as making meaning in a community can encompass the spectrum of human experience and yearning that stretches from her first, shaking sketch to more accomplished work in the slides of the art history course.

What's in this for Jody? Jody is a composite of all my profoundly handicapped students. He is severely brain damaged, and this has resulted in profound mental retardation and some type of cerebral palsy. I want more for Jody and more for myself as Jody's teacher.

In a Professional Development School, teachers and teacher educators will work hard and inventively to stretch the conventional academic spectrum so that it includes children who are severely impaired. Their work could expand our idea of the humanities in several directions, richer possibilities for such children, and a recovery of the deeper sense of the underlying humanity of academic subjects, too. Making meanings, sharing suffering, imagining, criticizing, telling a story, and acting as a force in another person's life—these are generic human capacities. If teachers and schools could enact the belief that all

humans are capable of making and sharing culture in some fashion, we would not be far from the roots of the matter—or from a radical rethinking of the whole field of special education. Our ambitious vision of learning for all should embrace children with special needs, who have a right to learn a valid version of the humanities, too, and who have much to teach the rest of us—teachers as well as children—about the deeper meaning of the humanities.

Community meshes academics, citizenship, and life

In the learning community, both words—"community" and "learning"—must have equal weight. A web of mutual respect, trust, and responsibility is as important as the intellectual content of programs. Without the life of the mind, community lacks intellectual purpose; without community, academic work lacks meaning. The fusion of both can create the "humanities" in the double sense of the word—the marriage of head and heart in human fellowship that produces true education.

Joseph Schwab used to point to a double meaning to the phrase, "learning community." In one sense, all knowledge is at bottom communal, and all learning a matter of participation in a dialogue, real or imagined. You learn the musical scales to take part in the community, past and present, of those who make and appreciate music. You are part of that community, even when playing the piano alone. The ancient Greeks emphasized the communal aspect of mathematics when they called it a performance art, linking it to such fields as music and dance. Reading and writing and speaking are the passports to the kingdom of discourse itself, which always takes place in some kind of community. The second meaning Schwab saw in "learning community" is that the arts of participation are themselves habits and skills that need to be learned. Particularly where the web of community is fragile and threatened, and where children encounter too few adults, community itself is something that needs to be learned.

The link between teaching for understanding and democratic practice becomes clear. In a learning community, all children, not just a few, learn to collaborate in making knowledge and taking part in culture. They learn to be an active part of the community

in many different, cross-cutting ways. What is required for academic success meshes with the requirements for good citizenship: effective participation in several sorts of dialogue and public action.

In a collaborative classroom the students with less information drive the students with more. It's not 'Oh, I don't understand that.' It's a continual 'Could you explain that so it will be clearer to me?'

Seminar participants argued that our schools have ignored the task of character and civic education—in the mistaken belief, perhaps, that such matters get in the way of academic learning. School purpose, they said, embraces not just higher test scores and better employment opportunities, but full participation in the body politic. The ideals of democracy and teaching for understanding are intertwined. Passive learners will rarely think powerfully, nor will they make strong citizens of a free republic. You learn democracy—both democratic discipline and free expression—by living it in a community together.

Schools should be public democratic spaces where young citizens learn critical thinking and civic courage, traits of civic and intellectual and moral character that are not at all separate from each other. Knowledge has to operate in the service of values. Prospective teachers will need cultural and civic intelligence to place knowledge in context and make judgments about values. At some point students need to begin assuming responsibility for their thought and action, under adult guidance. You can't teach critical thinking and civic courage by the instructional methods Montaigne derided long ago as "thundering in children's ears."

Schools perfectly model a democracy in the sense that you can't get kids to learn without their consent. A central, chronic problem of democracy is a problem of schools. You have to get their consent.

Our seminars emphasized the classroom and school as a community of learning, not to slight the individual—all education must balance individual and social aims—but because the participants believe that the individuality we prize so deeply in our students emerges as a result of their encounters with others—with families and peers and teachers. A powerful self is the result of a long schooling with others, one way or another. Students who can't listen while others are talking may never find their own distinctive voice. The definition of an educated person might well be someone who understands how to make better public and private meanings, and who can relate the two to make a distinctive self able to act with others.

Schools are public places where people master the discourse and habits that are essential to the development of both the private and the public person. This public quality—their quality as communities given over to learning—is part of the way that they bridge the distance from childhood to adult culture and citizenship.

What we are really talking about is helping young people grow up to be loving adults. The way you do that is by being a loving person yourself.

Our seminar participants were frank to say that glib portraits of harmonious school communities do not sit well with the grinding realities of schooling in many parts of the U.S. We were not wrong, they said, to link the issue of learning community to the

question of students' understanding. Participation is the key to both. Yet the necessary double webs of community and learning are strained in a democracy suffering from growing extremes of wealth and poverty.

People in the seminars deliberately refused to separate teaching for understanding from the creation of learning community. They also refused to make a clean break between the generic teachers' task of creating learning community and the particular role of teachers in U.S. democracy: to act as practical intellectuals, helping the people take part in reasoned discourse and the making of cultural meanings.

To us, the most important first step is agreeing that teachers need to become practical intellectuals, able to draw children into the cultural conversation. In his American classic, *The Souls of Black Folk*, W.E.B. DuBois left an indelible portrait of himself as a young teacher-intellectual reaching out to the people of the rural South. He taught Josie, a black girl aching to learn the best that had been said and thought. DuBois taught the old high culture, and his own view of culture was transformed, in turn, by what he learned from Josie and the world her folks had made for themselves between the horns of the American dilemma. The Josies of the land are still waiting.

Everybody's Children: Diversity, Equity, and Social Justice

In the kind of country that we are, and aspire to be, teaching and learning for understanding cannot be rationed to a few. The Professional Development School will be a place where everybody's children participate in making knowledge and meaning—where each child is a valued member of a community of learning. A very great challenge to the Professional Development School is to create such communities in a society whose families live on very unequal terms.

The third fundamental principle is, against the grain of an unequal society, to make teaching and learning for understanding available for everybody's children.

The seeds of failure for many children are sown early. Tomorrow's teachers will have responsibility for children who will not have an easy time of it. More will be raised by single parents. More will come from families strange to the mainstream culture. More will speak languages other than English. The biggest shadow falling over tomorrow's children will be the scourge of deep poverty. Seminar participants spoke of the growing desperation of poor families—comparing certain of our city schools to ramshackle arks riding the waters of some incomprehensible catastrophe.

The workplace demands flexible workers, the polity demands knowledgeable citizens, and everyone's prospects for a satisfying life hinge increasingly on a high quality education. Yet the dire predictions of those worried about this nation's economic and political future are starting to come true; teachers are among the first to witness the human costs of the society's wider failure.

These unprecedented changes already have two consequences for schoolpeople. First, in many schools, teachers and students do not share common cultural and social outlooks. Many teachers in schools and colleges are already baffled by the linguistic and racial and social-class and cultural differences they face in their classrooms. How can they help students learn? Second, the challenges of teaching for understanding—not just "delivering skills"—multiply in schools where the inequalities of class, race, and gender are severe and may be growing. Teaching for understanding is a dialogue, we said, a conversation. We spoke of taking part in culture—opening up the humanities and the liberal arts to all. Yet the barriers to any conversation are rising.

It is not enough to have the same program for all children. If you as teacher don't have the cultural knowledge to have all the kids get access to the same instructional goal, then you are failing to educate those children.

Grappling with the roots of failure

Society has many, often competing explanations for the failures of poor children. In one view, schools themselves construct the failures of students. A second explanation cites the lack of any mesh between school and students' futures. Third, school failure is explained by the circumstances of the lives of poor families. And fourth, school failure is traced to unequal resources available to schools serving poor neighborhoods. One part of the work of a Professional Development School is to explore such explanations—perhaps to discredit some and to uncover others.

Do schools cause students' failure? Schools profess egalitarian ideals but sort students in a variety of ways over the course of their careers. The sorting begins early, legitimated by subtle and overt interpretations of students' abilities. Children are characterized as smart or slow because of color, neighborhood, quality of clothing, or understanding of English. Such judgments can be based on

standardized tests of dubious validity, reflecting outmoded conceptions of human abilities. Once labelled, students sit imprisoned in the labels.

Look at the academic careers of two children beginning first grade. One child, who speaks and tests well, is placed in the top reading group, receives "enrichment" activities, moves into "gifted and talented" programs later on, and advances into the academic track in high school or to "honors" and Advanced Placement courses. This child learns intellectually rigorous material in the company of other academically minded students. She receives much encouragement, and is counselled for college entry.

Another child gets tagged early by standardized tests and classroom behavior as a "slow learner," "developmentally delayed," or any of a set of vague labels. This child encounters failure in a competitive environment early on. He is placed in the "low" reading group in first grade, falling further behind thereafter. He gets watered-down content, drillwork on disconnected reading passages, and mindless math problems. In remedial classes, he simply gets more experience with filling in blanks. If he is placed in a special education category, he is then segregated for large portions of the day or week in special classes, left out of the life and learning of his friends in the regular classroom. Small wonder he becomes discouraged, bored, hostile. He starts to get into trouble, to acquire a reputation that further confirms the school's labels. He is counselled into low-skill jobs by well-meaning schoolpeople who have small knowledge or expectations of him. He ends as predicted: an academic failure.

These two stories reflect the first of our common explanations as to why poor children are failing in our schools—namely that schools in a sense construct failure. Labels, categories, and predictions take on a life of their own, fulfilling the original prophecy in the eyes of all the participants—teachers, administrators, parents, and students themselves. One task of Professional Development Schools is to question. Does our machinery invent and produce school failure? Can we create alternative ways of managing students' academic careers so that many more can be captured by the ideas and habits of real learning?

Student diversity is only a problem because of the kind of school organization we have. When you take a bureaucratic mode of organization and put on top of it a legalistic mode of accountability, what it does is standardize further, which reduces the professional discretion to personalize services for children, which then creates more kids who don't fit. In all our good intentions we have made matters worse.

Do school and life seem disconnected? A second explanation for school failure is the absence of connection in students' minds between schooling and some plausible future. Many students are denied or deny themselves the rewards of successful schooling. No one has fired their imagination with the idea of college, or offered them the possibility of attractive, meaningful work. Though they arise early on, these problems are especially evident in middle schools and high schools. Professional Development Schools at these levels will need to explore imaginative ways to connect youth in tangible ways to better futures.

Is poverty to blame? A third explanation of school failure puts the blame on the circumstances of life in poor communities. We all have heard about these problems—high student mobility, high incidences of violence and substance abuse. Too many students walk into school hungry, without a quiet night's sleep, in poor health. No matter how humane and sensitive educators are, no matter how good the teachers, schools in such communities won't be able to succeed all alone. Schools need to become organizers of community effort—to discover new ways of working with parents and community and government agencies responding to the needs of children. Professional Development Schools in particular will need to become examples of how to reach out to bridge students' personal and school lives—creating a web of services and relationships that support learning.

We can learn to cherish the diversity of our students, but it creates an incredible tension as we try to respond to all the differences children bring as they cross the yard and come into the school. Unfortunately, the common traits that transcend students' differences tend to be alienation, low sense of efficacy, and demand for instant gratification stimulated by our consumerist culture.

Can we not afford good schools? Yet a fourth explanation for school failure is that some schools are as poor as the students they serve. They receive less money per pupil, pay lower salaries, attract less-qualified teachers, have fewer learning resources and instructional materials, and downright unpleasant work environments—leaking roofs and a shortage of writing paper. To the scandal of the profession, beginning teachers are assigned to children most in need of expert teachers. Poor districts are often forced to rely on newcomers and to suffer the consequences of rapid turnover, as experienced teachers leave for better work places and for higher paying jobs in wealthier districts. Such gross disparities convey powerful messages to everybody about who is valued in our society. We believe that Professional Development Schools, many of which will purposely be sited in poor areas, will engage in social and political action to acquire additional resources and to press the claims for justice on the larger society. In our view, a Professional Development School cannot be simply a technical invention for the promotion of more efficient forms of instruction; it must engage in the struggle to better its students' present and future lives. In so doing, a Professional Development School is likely to encounter one or more of these interpretations of school failure. With the varied talents of its teachers, administrators, and parents, the school working as a community may be able to change these conditions in ways that individual faculty cannot.

There is an enormous disjunction now between the bland climate of teacher education and the agonizing problems of schools serving poor children. A Professional Development School by itself cannot solve the problems arising from society, any more than any other public school can; neither can it evade them under the pretext that they are beyond its grasp. Although creating socially just learning communities in the long run will involve building a more equal and democratic society, school and university faculty can do a better job of disentangling social and class inequities from learning opportunities. They can begin work on the proposition that all can be taught to understand.

There is a significant literature on the qualities of programs that successfully break the cycle of disadvantage. A summary of these qualities developed by Lisbeth Schorr in *Within Our Reach* (1988) provides a useful way of thinking about how Professional Development Schools might begin to work on this broader agenda. Such programs typically see the child in the context of family and the family in the context of its surroundings; they offer a broad spectrum of services that are coherent and easily accessible. These programs are noted by their flexibility. They find ways to adapt or circumvent traditional professional and bureaucratic boundaries to meet the needs of those they serve; and they enable professionals to redefine their roles to respond to severe but often unarticulated needs. And those who work in these programs are viewed by those they serve as people who care about them and respect them, people they can trust. All of this meshes closely with our vision of Professional Development Schools as strong learning communities able to reshape forms according to local needs.

Unlike the university's traditional laboratory school, the Professional Development School is to be a public school that presents the most demanding challenge—responding to student diversity in ways that engage learners in making their own meaning from subject matter—teaching understanding rather than rote. Such schools would encourage several practices embracing all learners, creating opportunities for observation and study by experienced and prospective teachers and administrators, gaining understanding of different world views, contributing to the knowledge bases of education, and organizing for more equity.

Embracing all learners

Past efforts to teach understanding to students whose social or cultural background differed from that of the school often faltered. Old assumptions need to be questioned. Established approaches to teaching may need scrapping—along with standard notions of assessment and instructional method. Teachers will need to be able to take time to reflect on what they are doing, how it is working, what might be more appropriate, and try out diverse ways to reach and respond to students.

U.S. education is still preoccupied with students' shortcomings, and nowhere more so than in schools that enroll children from backgrounds unfamiliar to teachers. It is not hard to see why such students come up short. In addition to teachers' frequently negative expectations of them, schooling's traditional competitive ethos tends to reduce teachers to merely coping with cultural diversity. Seminar participants urged the creation of schools capable of celebrating it. Some offered evidence that cooperative methods greatly reduce teachers' and children's frustration and estrangement. These methods are promising because we need to educate a generation of teachers able to get beyond the initial sense of bafflement at a roomful of "strangers" and to meld them into a whole class stronger than its parts—and strong *because* of them. In such a class, students of varied backgrounds first respect, then value, then share, cooperate with, and learn from each other.

When teachers learn more about their students they can build learning communities that embrace rather than smother cultural diversity. Students do differ. Without stereotyping or prepackaged responses, such differences can become opportunities for richer learning. A main aim of teacher preparation, then, should be to prepare novice teachers for a career in which they will be able to draw upon students' diversity to make learning dynamic and interesting—for children and for themselves.

We speak of "celebrating" diversity because we believe that the hallmark of a true learning community is its inclusiveness—where teachers take responsibility for helping each child take part to his or her fullest. The idea of a learning community has special significance in a democracy, where all must find their voice. Thus we see the positive potential in a diverse student body. It can naturally draw into the classroom the ideas, languages, and perspectives of the cultures of other countries. In tomorrow's

richly diverse schools—if they are true learning communities—this nation's children will learn more easily that as adults and citizens they will be working and living with peoples of the whole world

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I would ask that you begin to look at the assets that some of these children have—with the backgrounds and languages they know—that can be used for the transmission of knowledge. And second, that in transmitting that knowledge, you realize you're giving them a lot more than mathematics and science; you're really transferring a whole value system that is ingrained in the literacy system.

Creating opportunities for observing and studying cultures

Schools and universities have too often reflected dominant cultural attitudes that despised the cultures of students of color We can no longer afford such attitudes Critical and thoughtful citizens need an education that helps them validate their own experience and outlook and encourages their participation in mainstream discourse Both are the birthrights of citizens in a democracy Schools should work as channels allowing students and teachers to travel back and forth between mainstream and tributary cultures, altering the mainstream itself in a process analogous to the organic growth of languages and rivers

Prospective teachers need experience in schools in which cultural pluralism is valued and where talk about racial, ethnic, and social-class diversity is a central item in faculty discussions Student diversity has received inadequate or inappropriate attention by school and university faculty, most of whom enter

education with little personal experience of people different from themselves. Little talk is devoted to racism and social-class discrimination in American public education. As matters stand, there are few opportunities at the university to explore the full meaning of cultural diversity.

Some states and schools districts have responded by mandating courses or workshops on such issues as bilingualism and multiculturalism. Typically, these do not lead to fundamental change. Like most in-service education, they lack coherence, intellectual rigor, and opportunities for follow-up and reflection on practice. Seminar participants advised that little can be gained by tinkering at the margins of the issue with courses that teach teachers simply to modify existing practices for the learner who is not typical.

A Professional Development School selected because of its staff's commitment to bridging cultural divides can provide novice practitioners with systematic occasions to study equity within diversity. Whether defined in terms of race, class, ethnicity, gender, religion, culture, or physical and mental handicap, every school brings together a diverse group of students, even those who at first glance appear alike. The key is concerted attention to differences among children that have consequences for their learning. Thus a school in inner-city Baltimore comprised entirely of African-American pupils or an all-white school in rural Utah might still be considered for a Professional Development School if its faculty share a commitment to make issues of diversity a central part of the professional discourse about curriculum, texts, pedagogy, classroom and school organization, and hiring decisions.

We believe that Professional Development Schools can develop as centers for inquiry—exploring ways to redirect our collective practice to integrate student cultural, linguistic, and gender diversity as central features of communities of learning. In such settings, teams of professors and teachers might together develop and evaluate curriculum units that break out of cultural standardization and present a more inclusive view of the humanities. For example, they might develop curricula that represent perspectives other than those of white males; that tell other stories from and in other languages; that teach children of color their history; and that broaden the history that their classmates learn. School and university faculty can embrace

world-wide views of the liberal arts and sciences, to help rectify past distortions and exclusions, including those of women's roles and voices, and to prepare students to be effective participants in the global community. They can help every student begin to hear and tell the stories that have been treated as marginal. Such multicultural experience can be part of the next generation's liberal arts—the humanities for a new, global era.

What may prepare young teachers to participate in this way is requirements in the school of ed for more coursework in liberal arts. We tend to build the base of our profession on psychology largely, and give far too little attention to sociology, political science, anthropology, literature, and philosophy.

Education faculty might develop preservice sequences of courses, seminars, and practica that have as common threads the application of research and theory to the whole spectrum of diversity among students—race, culture, language, academic ability, gender, and physical ability. From their university course work and from their immersion in the Professional Development School, teacher education students should come to understand how to think about subject matter, pedagogy, and learners from the viewpoint of children's different cultural backgrounds.

They should learn how to enter a different culture, how to look for multiple explanations for problems that emerge in the classroom, including those of cultural dissonance. They should learn how to learn from adults in their school communities and about building good relationships among children, parents, and school staff. Above all, prospective teachers should be helped to see and try a range of activities that teach from learners' strengths. In this way, the novice teacher would come to expect that a classroom of children would be diverse and that he could successfully play from the strength of the mix.

In the Professional Development School, we might see experienced teachers working together with university faculty to better understand the range of learners and styles of learning in their schools. We might see teachers testing curriculum modified for their own school's diverse students and explaining the results of their inquiry to their colleagues. We might see school and university faculty collecting and interpreting the practical knowledge of teachers for the purpose of establishing a case literature. We might see successful teachers writing and speaking about how they create a good learning community in their diverse schools. We might see teachers asking parents questions about culture and language, and using the answers to design programs for students in school and nonschool settings. We might see staff development activities spanning several years, all devoted to diversity in relation to curriculum, to instructional materials, to student grouping, to testing and assessment, to home-school relationships, and to developing coalitions with other community agencies and institutions.

Somehow students' current experiences in schools do not alter the meanings they carry around with them. That's exactly the case with experienced and preservice teachers in dealing with diversity and equity. Knowledge doesn't come in isolated chunks. You don't break it up, and you don't teach it in abstractions. You embed it in a real problem—minority children and how they learn—that needs to be solved.

Gaining understanding of different world views

Greater knowledge alone will not be sufficient. It is difficult for people to see beyond their own cultural walls until they encounter situations where their cultural references no longer serve them. Knowledge of different world views and meanings grows from personal exchanges with those who hold other perspectives. These truths argue for a clinical experience that serves a diverse array of youth and that involves parents and other adults from the children's communities. They also underscore the importance of recruiting and involving school and university faculty of color.

A Professional Development School can be the place where university faculty and novice teachers learn from the experiences that many teachers bring to successful work with diverse learners. Professional Development Schools can also learn from schools that have involved parents in key and significant ways. At the same time, we should bring into both university and public school teaching more faculty from America's rainbow of nations and peoples. To do so would help to diminish the powerful negative messages—about justice and fairness, about authority and power, about inclusion and participation—that are implicit in the prevailing monochrome of our nation's teaching cadre. To do so will allow different voices to be heard and different outlooks to be shared. Schools and universities are developing a number of promising strategies to attract and retain people of color in the teaching ranks and professoriate, and to extend the participation of women in math, science, and leadership positions—but these may not be sufficient. The current situation calls for radical action by universities, colleges of education, and school systems—by Professional Development Schools.

Contributing to the knowledge bases of education

The Professional Development School is needed to contribute to education's knowledge bases about instruction for groups of diverse children. Good experienced teachers affirm the findings of cognitive researchers. Children learn in remarkably different ways. Skilled teachers take these differences into account in developing instruction. There need be no dichotomy between pursuing

excellence and equity. But from social science researchers—and from parents—we know that frequently groups of children are barred access to rigorous teaching and hard learning because of their race, gender, ethnicity, or social class. As schools currently operate, they often are unable to recognize talent in students who are considered different. A rift opens between excellence and equity when one method or style becomes the norm for teaching and learning, or when student differences extend beyond the teacher's familiarity and comfort. Students with different ways of learning get cut off from the powerful ideas of the disciplines and from close relationships with more conventionally able classmates.

'Giftedness' is a label we use widely, a politically defined and socially constructed notion. The 98 percent who have another label, 'not gifted,' have a great deal to gain from equitable democratic schooling practices. There's this myth that if you're a mainstream, middle-class kid you're getting a good education. I believe that's just not true.

Much of the basic knowledge necessary for better teaching and learning in classrooms with widely diverse students is not yet part of the essential core of education studies. Along with their subject matter, teachers need to become students of their students—their cultural metaphors, languages and linguistic understandings, learning styles—to recognize them as resources for learning. Similarly, teachers need to study themselves, to revisit their own experiences as learners and to gain greater understanding of the cultural assumptions they bring to their students. The Professional Development School can provide such opportunities. It can be a setting in which university faculty with expertise in culture and in cognition, in its infinite varieties, learn together with teachers who are determined to create schools where cultural diversity is embraced.

Teachers must understand the crossroads between language, culture, and cognition. In a world changing so rapidly, where so many kids are moved without having anything to say about it from one linguistic culture to another, everything seems to be mixed up. What they thought they understood about the world has changed. What happens then? How do we reorganize the world order, the values, for these kids to learn?

Organizing for more equity

The bureaucratic organization of schools creates classifications that stereotype and segregate children. They also isolate teachers in their classrooms and administrators in their offices. This top-down organization of schools, combined with constraints imposed by lack of knowledge and experience, makes it difficult for schoolpeople to serve a varied student body. The result is a block on the energy, creativity, and skill of teachers. Thus many teachers feel powerless and unable to do what they believe is best for children. We see Professional Development School faculty confronting the conventional forms of school organization and beginning to develop new ways to organize the staff, assign children to classrooms, schedule the school day, and apportion teachers' work time, tasks, and responsibility.

A real key is 'Why do we do things the way we do?' As long as teachers are in this little eggcrate school and isolated in their classrooms with no time to talk there is little access to information that would be empowering. We need to begin a process where those things are up for grabs in the faculty room, as a legitimate part of the school day.

Seminar participants urged sweeping organizational changes in schools. They advised that Professional Development School faculty should investigate a variety of grouping practices—with students of different ages and abilities learning together. They recognized the difficult challenge in offering Advanced Placement calculus to some students without compromising the feeling of community throughout the school. They spoke of the strengths of learning communities developed over time, where teams of teachers and groups of pupils work together for more than one year. They argued that children's academic careers are better served when conceptions of good teaching and learning drive the organization and structure of schools. They saw Professional Development Schools evolving into something new—uniquely fashioned for their own faculty, resources, students, and community.

America's cultural diversity—a people of peoples—is one of its national treasures, providing opportunities for democratic communities of learning not available to many other nations. Teaching and learning for everybody's children is clearly an ambitious agenda. There is a small but emerging literature to guide our efforts. Holmes Group institutions will build on that base. We also hope to build on the work of many good teachers and administrators in schools across the country, who can tell stories of their struggles and successes. The challenge to the Professional Development School is to show how masses of public schools can follow their lead.

Teaching Adults as Well as Children

So far we have set forth three principles for the design of a Professional Development School. They suggest the kind of learning environment for children that we think should profoundly influence both teacher educators and prospective teachers. Now we ask, What should the learning be like for the adults in that school—not just the student and novice teachers, but the experienced practicing teachers, the school administrators, and the faculty from the university?

The fourth principle for the design of a Professional Development School is that in this school adults—teachers, teacher educators, and administrators—are expected to go on learning, too.

The Professional Development School should be a regular school where school and university faculties collaborate in giving prospective teachers practical experiences of schools and teaching. Here students preparing to become teachers observe teachers and students at work in classrooms, tutor students, work with small groups, help prepare curriculum, and help conduct research. Students come to a Professional Development School for short-term projects and assignments, as well as for extended practice teaching and for formal internships associated either with the culmination of their university education studies or with a formal, supervised induction program in the first year of teaching.

All of these experiences should be integrated with—and integral to—both the professional course of study established by the university and the ongoing life of the school. In all of these experiences, members of the faculty of the university—education professors and arts and sciences faculty—and of the school should collaborate as colleagues, meeting regularly and intensively on the whole range of tasks.

Four beliefs underlie this principle that the school is purpose-built for adults, too, to learn:

- A school dedicated to the education of teachers will be a better place for children to learn.
- Sustained experiences in a real school that takes responsibility for the learning of prospective teachers as well as for its own students will help the novice teachers to integrate what they're taught about teaching with what they see, do, and feel in classrooms.
- University courses in the disciplines, foundations, methods, and curriculum will be strengthened through connection to good practice and to problems of schooling experienced in a particular school.
- The education of school administrators can be improved through their greater attention to teaching and learning and to issues of forming a learning community.

Better for children

In a Professional Development School, the school's teachers will be challenged to be more explicit about the teaching and learning they promote, and this will sharpen and deepen their own practice. They will be asked to cultivate a heightened sense of professionalism around the mission of inducting novices, developing standards and norms of practice, and doing their own analyses of their teaching. Experienced teachers can renew themselves in the process of educating a new generation of teachers. They can recreate the intellectual base of their practice. Among other things, a Professional Development School may help persuade new and experienced teachers that a life in teaching can be rewarding and fun. As teachers begin to work as colleagues with university faculty—who bring new ideas and knowledge and who contribute time to the school's organizational planning, staff development, curriculum, and instruction—working in a Professional Development School should be intense and exciting. Such a tone would be one hallmark of success.

How would I want the work of teachers to be? I go for transparency: How are teachers' conceptions of the work with students and with one another made explicit and public and accessible among teachers? What choices are being made with children and why?

I want the quality of risk taking—a seminal quality that would lead to greater variety—moments of high, fast learning; engagement and excitement.

Better for student teachers

Theoretical knowledge is expressed abstractly and generally. Personal, practical knowledge is acquired concretely through experience, and expressed anecdotally. The problem of relating these two kinds of knowledge haunts professional education in all fields, but it is especially acute in education. The aim of college preparation for any would-be professional must be to impart not only the liberal arts disciplines and technical skill, but knowledge in the form of principles, concepts, and understanding that are on tap to reliably guide technique.

Teacher education has not been organized to encourage the application of principles to practical experience in classrooms, nor to provide the systematic trial teaching followed by critique that is necessary to improve skills, nor to convey the value commitments inherent in the work of teaching. This has been both an intellectual and an organizational problem. Educators have been unable to reach consensus on a course of study that draws on and integrates the disciplines and the practical wisdom possessed by expert teachers. And colleges of education have seldom created connections to schools that encourage the emergence of shared understandings among university and school

faculty. Consequently, teacher preparation usually lacks both intellectual and organizational articulation between college and school classrooms. Prospective teachers are left alone to integrate knowledge, to puzzle through applications, and to resolve contradictions, ambiguities, and tensions.

Professional Development Schools are essential to the Holmes Group goal of creating an extended, integrated program of teacher education that will join the liberal, professional, and clinical bases for practice in a comprehensive program of study and experience. We envision that as Holmes Group universities continue to develop professional studies programs that extend teacher education beyond its current, limited undergraduate niche, the Professional Development School will be one setting for field experiences that may begin in the undergraduate years, then extend into more intensive internships coordinated with continuing professional study. A *primary aim of Professional Development Schools will be to contribute to intellectually solid programs of teacher education that intertwine the wisdom of theory and practice, that encourage shared conceptions among university and school faculty, that assist novices in evaluating, integrating, and using knowledge from multiple sources, that convey the moral basis of teaching, and that recruit and keep imaginative and interesting teachers in the profession.*

A prerequisite for teaching for understanding is the teacher's knowledge of the subject. At one level, Professional Development Schools will try to connect to improved teaching in the arts and sciences in the colleges. They will work on making the knowledge students get in first-rate college courses "pedagogically available" to them in their new role as teachers. How this is to be done is a nice problem—and just the sort of thing that a program with a base in both university and school classrooms might be equipped to study.

The Holmes Group would like to see a bold and sweeping transformation of undergraduate teaching so that all secondary and elementary teachers emerge from college with clear comprehension of their subject and a broad grasp of the humanities. As we are critical of much teacher education, so we are also concerned for the passive and superficial quality of much undergraduate learning.

Teaching well requires active understanding in one or another discipline. But what should teachers know? Should they know more and more in one field, or is the best teaching essentially the

work of generalists? These are issues a Professional Development School could tackle. It may be that the ways the disciplines are presently organized in universities and in the curriculum of the schools are not necessarily the best ways of carving up the world and converting it into human knowledge for students.

Some thoughtful critics argue that today's academic curriculum is more or less a relic of the disciplinary specializations of the late 19th century, a set of museum pieces from intellectual history rather than powerfully compelling intellectual constructs. English and other languages, math, social studies, and science are not fixed and eternal categories of truth. A thoughtful and rigorous academic curriculum in a high school might well blend science and math, for example, or English and another language and history and geography. In the academic world the nineteenth century reformers left us, art and music are off to the side—not necessarily where they should be, theatre, which could be a powerful focus for integrating studies, is a frill. It's hard, some critics say, to teach deep content and the power of self-expression when the curriculum is chopped up in this fashion. How do would-be teachers construe knowledge and learning? Professional Development Schools may or may not come to agree with the critics. But they will be shirking their duty if they do not actively involve student teachers in exploring the implications of such debates for classroom teaching.

Many Professional Development Schools will be located in communities now poorly served by public education. The social ideals animating the Professional Development School should stress service and an ethic of caring and social justice. Seminar participants were emphatic and eloquent. Such a school would educate new teachers not only in knowledge and technique but also in conscience and vision, instilling a commitment to the learning of the poor and the marginal.

Young teachers can be challenged to take up difficult problems of practice because they will do so with the help of wise, veteran teachers. They can learn how to reach the children who are not succeeding in today's schools.

Better for education school faculty and experienced teachers

Two criticisms commonly leveled against the university are that the faculty who teach teachers are too far removed from the realities of schooling to provide knowledge that is usable, and that research on teaching and learning is too seldom based on actual contexts of schooling. A Professional Development School can ground the practice of university faculty—including both the education of teachers and the conduct of research—in the realities of schooling.

In using the term "university faculty" throughout this report, we mean to include both arts and sciences professors and education school professors. On a modest scale, liberal arts faculty from the university have always been involved in the schools, but a Professional Development School should increase their opportunities to teach younger students and to work with teachers on curriculum, new forms of instruction, teacher preparation, and research. This principle of broad involvement encompasses the full range of professionals as well, including school counselors, psychologists, nurses, social workers, and their counterparts among university faculty. Seminar participants envisioned a Professional Development School as a setting welcoming such broad participation and giving university faculty avenues to extend their interests into the schools.

Of equal importance is the continuing education of Professional Development School teachers, pursued through their own inquiries and through the ambience of the school itself. Because the Professional Development School will be a partnership between the public schools and the university, some school

faculty will be formally integrated into the teacher preparation program. This could take the form of schoolteachers teaching courses at the university, participating in the development of the teacher education curriculum, and generally taking part in the work of the education school as it manages the liberal and professional education of prospective educators.

A Professional Development School must not become a colony settled by the university in the public schools. Rather, it should be an opportunity to join the strengths of the two institutions in pursuit of common purposes, and to combine their intellectual and material resources to more powerfully pursue those purposes. Seminar participants anticipate a two-way traffic between the school and the university. This traffic should directly contribute to the ongoing professional education of experienced teachers.

To become an accomplished professional teacher requires not only systematic training and formal socialization but updating your knowledge of the subjects you teach, attending more closely to the students you teach, developing new methods for your repertoire, and extending your influence beyond the bounds of your own classroom. Knowledgeable and practical university faculty should be your colleagues in all these endeavors.

No one can begin to master the complexities of schoolteaching in the brief space of an initial preparation program. Continuing learning is a necessity. Many fine teachers engage in such learning, through reflection on their individual trials and errors, and in interaction with colleagues. But, seminar participants emphasized, most schools are not organized to capitalize on

teacher learning—even though this is the key to the creation of excellent schools.

Better for school administrators

Professional Development Schools will serve also as sites for learning the art and craft of school administration. Well-formed ideas about teaching and learning worked out in the company of diverse educators and community members. These are the wellsprings of educational administration. If an administrator is to be more than caretaker of a building, then he or she must develop a powerful set of educational convictions, and an approach to putting these convictions into practice. A university is a useful place for exploring and acquiring convictions and theory; practice is best learned on site, in real schools.

It follows, then, that the proper education of administrators, as for teachers, takes place in a setting that combines the advantages of the university and the schools. Some outstanding teachers eventually seek administrative positions. "They have the craft knowledge," claimed one university educator, "but they come to us looking for something else." They need to learn the essential administrative art: nurturing a school from a collection of individual students and teachers into a learning community.

Useful knowledge exists bearing on such practice; but this knowledge is best gained in such forms of theory-practice as case analysis, internships and practica linked with university coursework, and seminars that are taught by practicing administrators and administrator educators.

The processes of recruiting, selecting, training, and socializing administrators in the U.S. have failed to promote serious engagement with the core activities of schooling—teaching and learning and cultivating community. Yet one hallmark of excellent administrators is their well-articulated beliefs about teaching, learning, and school community. Professional education for administrators, then, must convey such knowledge and encourage such convictions.

What's good for students and teachers, we believe, will prove good for administrators. A Professional Development School should encourage outstanding administrators to join with university faculty in the conduct of administrator education. Together they can explore problems of practice in real settings.

join inquiry to administrative practice, and attend to the ongoing learning of administrators through formal and informal staff development.

I have a self-renewing thing. I got it at the university, from the kind of rigorous study in the disciplines that can only be gotten in the university. Then there was my K-12 experience, which gave me an understanding of how one thing builds on another. I have experience in schools with a range of ethnic diversity. I have learned that culture—what communities want—makes a big difference. And then there is my central district experience, which helped me understand how to get things done, how to run interference. But what really drives me is a strong personal agenda. For me that is helping minority students achieve.

Administrators also will gain from joining with teachers in the school's self-study and the staff's continuing professional education. These will often involve teams learning together, sharing their expertise and perspectives. For example, a seminar on approaches to science teaching might draw experienced teachers, teacher educators, and administrators together with preservice teachers and novice administrators. The seminar might set forth the underlying theory of teaching a particular science, analyze case problems that emerge, and lead on to opportunities to try out such teaching. Simultaneously and in parallel, the seminar would take up questions of how to organize such

instruction, exploring the management issues involved in efforts to systematically transform instruction schoolwide.

Joint learning opportunities of this sort have many advantages. They help to develop shared conceptions of teaching and to shape convictions about standards that prevail in the school. This kind of staff development can alert teachers to the schoolwide milieu of their work and to the wider issue of the total learning careers of students. Such seminars for administrators and teachers can be a means for coordinating instruction because it will arise out of shared technical and social norms. A learning community is built from such work.

An understanding of teaching, learning, and community forms an essential ground for the art and craft of educational administration. Professional Development Schools will be good places to cultivate such understanding, and to reconstruct the education of administrators.

Center for Reflection and Inquiry

The work we have described for teachers, administrators, and teacher educators is complicated and difficult, and it calls for not just one fresh beginning but for continual reassessment, relearning, and redesign. This approach to work may seem foreign to schooling, but the most successful businesses and industries in the world regard it as essential and commonplace. They rethink, retool, research, and re-educate all the time. They do it to stay on top of the demands of new times and new markets, and to capitalize on the discoveries of formal research and invention and on the practical insights arising from their workers' experience. Schooling—on which our social order, government, culture, and economy increasingly depend—must do no less.

Participants in the Tomorrow's Schools seminars were unanimous that teaching for understanding in learning communities for everybody's children will be possible only in a school where purposeful preparation, mindful practice, critical reflection, mutual discourse, and continuing inquiry are normal ways of working, not exceptional events. All schools should do more to encourage such reflective and inventive teaching and learning.

Schools that prepare new teachers must do something more. From the time student teachers first begin seriously to hone their skills and to assume their professional attitudes, the habits of reflecting, questioning, and trying out and evaluating new ways of teaching—by themselves and with colleagues—should become embedded in their professional identity.

Thus the fifth principle for a Professional Development School is that it make reflection and inquiry a central feature of the school and a visible, well-organized presence in the school district.

In a Professional Development School, we're not talking about ordinary student teaching. We don't see the education of teachers as a short-term matter. The lifelong learning of teachers is our major point. The main reason for inquiry in a Professional Development School is to teach teachers to do it.

The universities that comprise the Holmes Group are among this nation's major research institutions, where tradition and practice center on creating new knowledge and ideas. The work of the few faculty who see themselves as teacher educators—responsible for preparing future school practitioners—often has little in common with those who see their major responsibility as the study of schooling and the education of those who will become teachers of teachers. That tension is reflected in their different expectations.

A similar disconnection between research and practice occurs *across* education institutions. The common view is that universities produce knowledge, and schools are supposed to implement their findings. Research is something produced by university faculty with specialized skills in research design and methodology. Teachers often provide the raw material for such research—they are the data—and are sometimes recipients of its findings, through inservice or technical assistance, but they are usually not active agents in shaping research questions, interpreting results, or connecting results with their teaching. Students of teaching in colleges and universities spend most of their time in college classrooms listening to lectures delivered from textbooks based on research that is weakly connected to life as a practicing teacher.

This style of education research—which has been dominant for about eighty years—has had some constructive effects. It has

raised the level of critical thought and discourse about teaching. It has questioned conventional wisdom about teaching and given empirical support to new conceptions of teaching and learning. And it has introduced a higher level of discipline to the study of teaching and learning. In securing these advantages, though, this university-based style of education research has widened the gulf between researchers and practitioners in ways that tend to disable both.

The problems of this kind of educational research run deeper than a simple lack of relevance to practice. They stem from the strong grip of traditional disciplinary research on education, from the lack of a vital intellectual tradition linking issues of teaching practice with serious inquiry and writing, and from the limitations of traditional research methods in disclosing important problems of teaching and learning.

Early in its history, the Holmes Group recognized these tensions. In *Tomorrow's Teachers*, the Holmes Group proposed two imperatives:

I have yet to find a place to work that values any sort of intellectual activity on the part of teachers. Thinking is a pretty risky business. Who's going to say that inquiry is a major part of teachers' work? If you're devoting a large part of your time to thinking, you're not a teacher.

The improvement and professionalization of teaching depend ultimately on providing teachers with opportunities to contribute to the development of knowledge in their profession, to form collegial relationships beyond their immediate working environment, and to grow intellectually as they mature professionally.

The improvement of teacher education depends on the continuing development of systematic knowledge and reflective practice.

Seminar participants saw the Professional Development School as an important juncture of research and practice, where the strengths of the research tradition of Holmes Group institutions can be forged with the experiences, concerns, and interests of schoolpeople. This new institution, fostering closer connections between schools of education and schools, is fundamental to improving teaching and teacher education.

Inquiry as a mutual task

Inquiry should be defined as the common task of both university and school faculty. The agenda of inquiry might include formal research within established traditions of social science. Certainly it would include informal but systematic inquiry about the school's instruction, as well as the development of new curriculum materials and teaching methods, and experiments with different ways of organizing the school's classes, classrooms, schedules, staffing, and budget.

For example, university faculty—teacher educators as well as liberal arts professors—interested in a specific subject might collaborate with school faculty in varying the teaching content and methods and then evaluating how well students understand concepts. School and university faculty might work together to explore how technology can enable them to invent better curriculum and instruction for their schools' students. Teachers in a school could help teacher educators generate case studies for use with student teachers in their education courses. Administrators might devise and start up new management practices or new staffing patterns, and systematically document how they work.

The idea of research growing out of the daily work of teachers and students in schools is foreign to most schools. But a few schools have managed to make inquiry a central part of their work. The 1988 issue of the *Harvard Education Letter Digest* describes a number of instances of teacher-directed inquiry. A ninth-grade teacher from Alabama collaborates with a linguistics scholar from Stanford University to design a project in which she and her students conduct research on the uses of reading and writing in their own community. A group of colleagues in a Philadelphia school advise each other, using a carefully developed framework, about how they should teach specific students, based on data collected and organized around the child's emotional state, social

relationships, expressive work, interests, and academic performance. A teacher in New York City keeps a detailed journal of observations of the children in her classroom. She uses the journal as a basis for planning classroom activities, parent conferences, and journal articles she writes about teaching. A group of teachers in a large eastern city conducts a study of the experiences facing first-year teachers. The results are presented to the district administration and they provoke a reconsideration of the district's methods for inducting new teachers. These kinds of inquiry can have a powerful effect not just on our knowledge of teaching and learning but on the work lives of teachers—and on our vision of teaching itself. They increase our understanding of teaching, provide new ideas and occasions for collaboration with colleagues.

The task of agreeing on a common agenda of inquiry in the Professional Development School is not simply one of capitalizing on the existing specialized knowledge of individual university and school faculty—although the special strengths of each member are important points of departure. Rather, a common agenda requires a strategy for distributing knowledge and competence in ways that allow individuals to go beyond the bounds of their specialized knowledge, to learn new things, and to work productively as a group.

Professional Development Schools will not work well as communities of inquiry if they are simply collections of individuals doing things they are already good at. They will grow and expand if people see them as places where they can work at the outer edges of their existing knowledge, develop new capacities, and work with others on a variety of new and interesting problems.

Teachers have to learn that this is what the profession is like. We are not looking for the final answer. Rather, this is a search in which we will always have to be engaged.

For teachers, participation in inquiry will be a form of professional development whose rewards are both tangible—recognition, variety in work, access to additional resources—and intangible—the intellectual engagement and discovery, the opportunity to be creative and to work with others on important problems.

Inquiry in the Professional Development School should be a way for teachers, administrators, and professors to come together on equal footing. It should help forge a shared professional identity in schools and universities. And it should serve as a professional norm around which collaboration can take place, bringing together the many parties who are concerned for improving schools.

The Professional Development School is not a laboratory school. What is needed is not just a working coalition of schools and universities as they are, but a powerful synthesis of knowledge to help us find out what the schools of tomorrow might be like. To make this happen, universities will have to take schools seriously and treat them with respect, and they will have to take a close look at their own behavior and values.

Diverse strategies and topics for inquiry

A common response by education researchers to the complexity of teaching and learning has been to focus on a few "behaviors" of teachers and students and to study their effects on a few indicators of student learning. The word "behaviors" is a tip-off to the fundamental process of over-simplification at work. This kind of research on teaching has led, either inadvertently or intentionally, to simplistic conceptions of teaching and learning.

and to reforms that treat teachers as passive implementors of prescribed programs.

As school and university faculty work together in schools, strategies of inquiry will begin to match the complexity and variety of good teaching and learning. Research will become more responsive to the school. In the past, researchers have used schools merely as settings for experiments. In contrast, in a Professional Development School, research will arise from issues important to the school, be conducted collegially, and will enliven children's and teachers' work.

For example, Professional Development School faculty might be engaged in a project on teaching reading to students from diverse cultural backgrounds. One concern of this faculty might be that students from certain cultural backgrounds respond more readily to teachers' questions than others. These teachers might want to develop an observational scheme to understand differing patterns of classroom interaction. There is a research literature on this subject. There are even observational instruments that might be adapted for this purpose. But the purpose of the inquiry, from the perspective of Professional Development School faculty, is not simply to replicate other research but to use collegial observation as a way to improve and refine teachers' responsiveness to student differences. Hence, the kind of instrument, the kind of observation, the nature of the results, and the nature of interaction around the results would be quite different from inquiry conducted by an outside researcher collecting data on the same subject.

Inquiry that grows out of the school faculty's concerns about their teaching and their students' learning will be more diverse than that arising from conventional canons of competent educational research. The discipline of inquiry will grow from the commitment of colleagues to understand and improve their own practice and to influence the incipient practice of student teachers, rather than from conventional rules and methods of research.

Teachers are often required to take training designed to change the way they teach. In most instances this training is brief—four or five days a year. Often it is conducted by outside consultants. Usually it is the product of district-wide priorities rather than concerns of a school faculty. Thus it is seldom connected to the problems that teachers see as most urgent. Training rarely entails sufficient follow-up in the classroom to determine whether it has

influenced the way teachers teach. And the subject of training shifts from one topic to another with frequency, with little continuity from one year to the next. Yet training is a vast educational industry in the U.S.

A Professional Development School will be a center of inquiry where people can seek to improve their practice in ways that are more diverse, subtle, substantive, broad-gauged, and ongoing than training. The school's faculty will be engaged in inquiry about such matters as organization, curriculum, and methods of teaching. We don't necessarily expect Professional Development Schools to make huge new breakthroughs, but they will be able to wrestle with these big ideas persistently, in detail, to explore them over time. A certain amount of groping, improvisation, and serendipity should be part of any organization that is experimenting with new responses to complex problems. Thoughtful replication of and generalizations about promising innovations will be needed. These needn't undermine spontaneity. They should be a way of holding a focus on a common agenda of inquiry long enough so that real changes in teaching practice can occur and spread.

Inquiry and disciplined replication as bases for school reform

The continuing education and improving practice of Professional Development School faculty can emerge from an agenda of inquiry rather than from external prescriptions designed around the education innovation of the moment. In a Professional Development School, the faculty can create a new basis for school reform.

In the past twenty years or so, school reform has become less the province of practicing educators and more the province of policymakers and experts with little grounding in practice. The reasons for this shift are complex, but at least two stand out. First, the public in general and education policymakers in particular are increasingly distrustful of the expertise of teachers and principals—increasingly willing to question their judgments. Second, as education interest groups such as teachers' and administrators' associations and school boards have become more organized and politically active, policymakers perceive them to be carrying self-interested political objectives. Consequently, policymakers look for other, more "neutral" sources of advice.

about school reform. The result is that the last generation of school reform, beginning in the late 1970s and extending into the present, was largely done to, rather than done with, professional educators.

In our school we are trying to figure out something, and we are doing it using the people who do the teaching. We find that to do this we need more teachers and they need more time for reflection and deliberation. Schools, in order to be good schools, always have to be engaged in research. The work of the Professional Development School can't just be a matter of 'We figure it out, then we tell you how to do it.' In the end, everybody has to do the research for themselves, even though others have prepared the way with their work.

Professional Development Schools can provide a new institutional base for "restructuring" schools if they develop reputations as places where teachers engage in the serious work of improving teaching and learning. Seminar participants spoke of several conditions necessary in order for a Professional Development School to be an example of restructuring.

- Teachers need to learn to deal with questions that don't have ready answers, to be able to reflect and inquire about their work.
- Teachers and administrators need to know parents and the community.
- Parents should want more for their children than just getting good grades, and should know what is going on in the school and be part of the school's decision making.

- Politicians and business people need to understand that the work of the Professional Development School is a long-term, developmental process, with no models that can be quickly installed

Professional Development Schools can also supply a much-needed alternative perspective on the effects of school reform. They can serve, for example, as places where a limited set of reform ideas is pilot-tested before being generalized to policy. For schools trying to change, Professional Development Schools can serve as sources of information about new practices. And they can serve as sites where policymakers see for themselves, in a real school, what particular approaches to teaching and learning look like.

From "islands of excellence" to professional networks

Seminar participants noted several schools that embody the attributes we would like to see in Professional Development Schools. The historical literature on school reform is persuasive. Successful schools in which faculty study their own practice are not a novel occurrence. University laboratory schools, the progressive schools, the child study movement, the American "open education" or informal and nongraded elementary schools inspired by the British infant schools, the relatively new Coalition of Essential Schools—all manifest some of the qualities that we would like to see in Professional Development Schools. Important as these examples are in shaping our ideas about schooling, however, they have not had a broad or sustained effect on the preparation of teachers or on the practice of teaching.

School reformers have often succeeded at creating "islands of excellence"—single schools or small groups of schools with a serious commitment to improving teaching and learning. To date, however, educators have not succeeded at creating an institutional network of exemplary schools that make a broad impact on American education generally. Islands of excellence, while providing inspiration to generations of reformers, have been relatively easy for mainstream educators to ignore. They are typically dismissed as "special" schools, involving "special" children of "special" parents, pursuing precious ideas that are impossible to implement in the "real world" of public education. Otherwise powerful and important ideas about teaching and learning get discredited.

In urging its members to create Professional Development Schools, the Holmes Group takes up this challenge. Holmes Group Professional Development Schools will be focused on the pursuit of new ways to teach, in settings that have credibility with other educators and with the public at large. More important, the feature that will distinguish Holmes Group Professional Development Schools from islands of excellence will be their connection to each other through professional networks that will pick up and amplify successful visions, approaches, and experiments emanating from the different network members.

Professional Development Schools will have the opportunity to construct a variety of networks. One network can be the teachers who have received their initial clinical preparation in Professional Development Schools. These alumni can be a valuable source of external support and an audience for new ideas about practice—but they must be mobilized to be helpful. Another network might be a group of Professional Development Schools organized around a given university. The faculty of these organizations can serve as contacts for each other and for other teachers in their school systems for new ideas about practice. Some school districts will make formal use of this network; in others, their effects will be felt informally.

The broadest network will be the collection of all Holmes Group Professional Development Schools, calling national attention to the research and improved practice they are developing. The construction and use of these networks is, in the long run, what will distinguish Professional Development Schools from past examples of individual school reform that have failed to have a broader influence.

New forms of evaluation and rewards

In proposing that a Professional Development School become a center for reflection and inquiry, we are not suggesting that conventional research on teaching and learning be completely displaced. We are suggesting, rather, that a new kind of inquiry be given equal standing with conventional research. We also are suggesting that the development of this new kind of inquiry will require fundamental changes in the relationships now common between university and school faculties.

Professional Development Schools will need to use systems for evaluating and rewarding school and university faculty that stress involvement in a common enterprise. University faculty are presently evaluated and rewarded on their teaching within the university, on their contribution to research for an academic audience, and on their service to the community. School faculty are presently evaluated and rewarded on their teaching of specific content or grade levels and on their contribution to the schools in which they work. If these two reward systems are left unchanged in Professional Development Schools, school and university faculty will tend to pull apart, whatever their initial commitment to a common agenda of inquiry.

University faculty will be pulled away from the school by their university teaching commitments and by their professional research audiences. School faculty will be pulled toward specific issues of their schools and toward the immediate problems of teaching particular content to particular students. Thus Professional Development Schools—universities, colleges of education, and schools, alike—will need to evolve new ways of thinking about the work of their faculty, and new systems of evaluation and rewards based upon those conceptions of work.

Parity in rank between some senior schoolteachers and some university educators could help inquiry in Professional Development Schools for at least two reasons. First, parity could be one source of glue holding Professional Development Schools together as organizations rather than as collections of solo performers. Second, parity in rank could provide a mechanism for continuous growth and improvement for individuals and for the group.

What is essential is the unique view of the Professional Development School not simply as a clinical or laboratory setting at the service of a university but as a center of inquiry with its own agenda, drawing the sustained attention of collaborating school and university faculty to the school's own critical questions of practice. This agenda needs to be supported by a set of norms and incentives that keep school and university engaged in a common enterprise. That enterprise needs to be linked to a broader network of institutions sustained and supported by the Holmes Group. The Holmes Group Professional Development Schools network will provide a new basis for sustained inquiry about teaching and learning, directly related to practice, and an alternative basis for school reform for the future.

Inventing a New Organization

In creating a Professional Development School, typical aspects of a school's organizational structure may need to be changed wholesale.

- Work roles and assignments of the school's faculty and of the university's professors will change as the definitions of teaching, inquiry, and service are diversified and broadened. They will also change as some school and university faculty exchange roles in the education of student teachers.
- Teachers will need time to plan the school, revise the curriculum, teach and supervise student teachers, reflect on, experiment with, and evaluate their own teaching, join in research, meet with parents and with community agencies, and design staff development that's relevant to all this.
- Scheduling of classes will have to be adapted to enact principles of teaching and learning for understanding for all children, of the school as a learning community, and of ensuring equity within diversity. Curricular, grade level, and departmental organization probably will be changed.
- Ways in which faculty meet and work will need to be more direct, open, participatory, collegial—and yet expeditious and to the point.
- Leadership and relations with the central office of the school district will allow for more decisions to be made at the school and for new work norms and expectations to take shape there.

Thus the sixth principle for the design of a Professional Development School is that the school's management, leadership, and faculty—including colleagues from the university—work together to invent a new organizational structure in line with the school's new purposes and principles about teaching and learning.

This restructuring will not be innovation for its own sake; it will be anchored in the faculty's notions of good teaching and learning. The school surely will not be the same as it was before, nor will it look like other schools in the district or other Professional Development Schools. The inventiveness and attentiveness to context with which faculties apply Professional Development School principles will produce many different organizational forms, and Professional Development Schools can be expected to look very different from one another. We think they will look alike in two respects, though. They will be fashioning new roles for their teachers, and they will be creating strong new connections with the community around the school.

The teacher's role: complexity and flexibility

Seminar participants deplored the present tendency for specialization in teaching to cause fragmentation of instruction, isolation of pupils, lack of coordination between regular and special teachers, and a subtle diffusion of responsibility for the welfare of individual students, breaking the webs of the learning community. Systems now are entrenched that codify specialist credentials, training programs, regulations, funding mechanisms, and patterns of practice.

Problems arising from specialization are only the most recent reason for rigidity in the teacher's role. Long ago, traditional patterns of school organization caused teaching jobs to be circumscribed according to grade level, subject area, and curricular placement (for instance, Business English and Honors English). In elementary and middle schools, age grading and teacher specialization by level disrupt the continuity of education over time, as students are conveyed from grade to grade, teacher to teacher. In high schools also, the narrow organization of subject matter too frequently prevents students from making vital connections to their own understanding, interests, and experiences and from bringing knowledge to bear in genuine inquiries and intellectual projects. Equally, the organization of students by tracks, special categories, and the like denies access to knowledge for many.

In a Professional Development School committed to teaching for understanding in learning communities, the principle that mainly defines the teachers' roles should not be specializations of one sort or another but rather each student's whole *career* in the

school—the quality of learning looked at over a long period of time. Using this yardstick may prompt a Professional Development School faculty to design alternative ways of organizing subjects and staff—interdisciplinary studies, for instance—and grouping students by characteristics other than age and measures of ability. Such actions are likely to require flexible rather than specialist staffing. The teacher's job description then will flow from the changing needs of the school, rather than from decisions in the central office.

People have taken for granted that a good teacher must be able to 'manage' 150 kids every day and that even good teachers will be able to 'reach' only a few of their students. This is not good enough. Now people are saying that all students should learn. Teachers know they can't meet such a standard within the current constraints. The definition has changed but the conditions of work have not.

Schools and the wider community

Many schools are swamped by the stresses and circumstances of their students—poverty, drugs, homelessness, hunger, gangs, youth employment and unemployment, and the shifting patterns of family life. Teachers' and administrators' primary responsibility is instruction, but as a practical and moral matter they cannot ignore the social and psychological

A greater sense of professionalism on the part of teachers should never distance them from parents and others in the community surrounding the school.

The Professional Development School needs to create constructive ways for prospective teachers to meet with parents and to integrate their knowledge into classroom life. Parents and community are vital resources. Parents can be important as tutors, storytellers, models, and interpreters of language and of cultural and community knowledge. We expect that some Professional Development Schools will explore new forms of governance in which parents and local community members play important roles. Social foundations courses might send teacher education students to meetings of community organizations, school board sessions, and the like. Future teachers need to observe children in settings outside school—boys' and girls' clubs, day care centers, and playgrounds. Every aspiring teacher should get to know one or two families well.

Some guidelines for a school staff in taking on responsibilities adjacent to teaching were suggested by seminar participants:

- The personal well-being of children and their ability to learn are interwoven. Children inhabit one world. But the school is limited in time and competence to deal with children's out-of-school problems. Social agencies, churches, community organizations, and the business community should be recruited as active partners in the school community.
- The school's central teaching and learning functions must provide the rationale for any involvement with other kinds of concerns. Teachers and administrators must be firm and articulate about that rationale when asked to take on other responsibilities. It's obvious, for example, that hungry children won't learn well.
- The school should engage the community in dialogue on the school's educational purposes and programs, especially when issues of values divide the school from the community. All

children learn best when parents and teachers share similar visions. The imperative to engage in dialogue with community is complicated, however, by the fact that in most schools "community" consists of disparate groups, sending children from far-flung areas because of busing, consolidation of rural schools, and programs that provide parents with choice of school.

Some seminar participants also advocated creating stronger connections between schooling and the outside world, since so many students now see no future payoff in school. More and more, high school teachers' best efforts do not persuade students to learn and work hard. For some, a real opportunity to attend college would be a compelling motive. For others, stronger school and work connections, and the knowledge that rewarding jobs are available for successful graduates would be powerful incentives. Teachers in some Professional Development Schools might engage with students on grounds broader than academics—participation, for example, in partnerships with businesses and agencies in the work sector, or becoming partners in local and regional economic development.

Schools don't just exist to provide people for the job market. They exist to reshape the way young people think about work and their future. That's a piece of social justice.

Our seminars shared a growing consensus that the principle of a learning community could be more easily enacted in a smaller school. Bigness plagues American education. Too many swollen institutions are processing students rather than educating them. Genuine learning communities require places where people know each other and are known. Teachers and students thrive in settings where the threads of connection overlap to form a complex and thick-textured fabric of common life. Big schools, people said, ought to be divided up into humanly manageable sub-units. In a smaller school—or small units in a big school—children and teachers can wear many hats.

Five Guideposts for the New Organizational Structure

First, we advocate an organizational structure keyed to the coordination of instruction and services. As we suggested, the unit of analysis ought to be the individual student's educational career. This requires paying attention not so much to course requirements and short-term evaluations like tests, but to the variety and vitality of the student's formal and informal learning experiences, and to the ways that the student participates in the school and community and learns to shape purposes over time. Too few children today get chances for sustained, open-ended interaction and dialogue with adults. Children are more hungry than ever for adult attention, and the adults in their school have become even more crucial in their development.

Teachers have the task of picking up the marbles for the rest of society. They will not be able to succeed by themselves alone. Teachers will need allies and coalitions outside the schools.

Not only social welfare agencies but any community agency that can link children to older, more experienced people—to older children, for example—can be an immense ally for the school. Neighborhood youth organizations provide opportunities for sustained, open-ended learning for students that may be missing in families. School learning can be given meaning by integrating study in a number of academic studies—math, science, and writing, for instance—into activities in such organizations and in the community. If such activities focus on issues of importance to the community and if the students' participation highlights the use of their school skills, the students can develop the invaluable sense of competence to deal with the worlds inside and outside the school.

Informal specialization, rotating assignments

Second, we favor flexible staffing arrangements that emerge from the needs of the local school. Our seminar participants encouraged the informal

specialization that draws on the natural strengths, inclinations, and leadership of teachers. One third grade teacher is especially strong in science, another in language arts, yet another in working with special needs children. Each assumes primary responsibility for her specialty, developing curricular materials and instructing colleagues in their use with students.

Such arrangements make sense in any school. In a school with additional missions for teacher education and inquiry, some further specialization and differentiated staffing may be essential. The design task will be to capitalize on teachers' expertise and energies, while avoiding a rigid hierarchy and divisive competition for scarce positions and resources. No single teacher is expected to master all the roles and responsibilities that students and student teachers need, nor to struggle in silence over the tasks she can't handle. The faculty works toward the collective provision of the needed knowledge and skills, drawing on university colleagues and on local resources inside and outside of the school.

Participants in the seminars also recommended development of temporary and rotating assignments. University and school faculty may be wary of long-term obligations but be willing to undertake shorter assignments, to share positions and tasks with others, and to fill permanent positions on a rotating basis. Such an approach can convey several benefits. Expertise can be identified, cultivated, and rewarded broadly among a faculty, including its extended members from the university. Variety can flavor the work. Time with youngsters, and the love of subject—good teachers' most powerful incentives—can be provided for all.

A school working along these lines will differ distinctly from the traditional professional model, in which hierarchies command and control and a collection of credentialled specialists progressively narrow their concerns for students. Professional Development Schools need to be flexible, innovative organizations with the capacity to try out alternatives, to reject or modify what does not work, and to continue experimenting. This goes not only for teaching but also for organization and management.

The flexible staffing patterns that Professional Development Schools will need are consonant with the Holmes Group goal that called for "recognizing differences in teachers' knowledge, skill, and commitment, in their education, certification, and work." In a Professional Development School these positions might in

effect—formally or informally—include senior teachers (what *Tomorrow's Teachers* called "career professional teachers"), who take leadership in instructional planning, curriculum, research, and teaching teachers; experienced teachers, who teach in classrooms, mentor student teachers, and participate in all the professional tasks of the school; and classroom teachers, who work under supervision because they have not met the full requirements for professional licensure.

A number of Holmes Group universities have preparation programs for such positions. Many states have legislated both "alternate route" teacher preparation programs that allow people to teach under supervision while studying for licensure, and various "career ladder" structures that introduce advanced positions into the teaching ranks.

It may be possible to capitalize on these policy innovations in the process of creating new structures and positions in a Professional Development School. Whether positions are established with official titles, descriptions, and perks is less important than two principles. Forms should flow from the needs of the local learning community, and schools should learn to make use of the wisdom of the best practitioners.

Public forms of accountability

A *third guidepost for organizing the Professional Development School is to prepare to shift from the present forms of accountability to new forms of professional responsibility.* The "prove it" environment that teachers work in has gradually intensified in recent years with the growing sophistication of the testing industry and the centralization of authority over schools. Among school systems in the world, ours is notable for its reliance on a range of accountability measures that include standardized tests administered from the national, state, and district levels, together with the collection and public display of information on other aspects of school processes, outcomes, and conditions.

The increasingly complex accountability framework in the U.S. has exacted costs. Valid and reliable information on student learning is necessary to direct the work of educators at all levels, to gauge progress toward goals, to inform a range of educational policy decisions, and to enable the public to engage in responsible oversight of the schools it pays for. But seminar participants

insisted that the systems that have taken shape have also had unfortunate consequences for teaching. The range of what is taught is increasingly narrowed to what is measured—just when we are starting to develop more ambitious conceptions of learning. Bureaucratic control stifles the spirit of learning in teachers and students alike. The search for new ways to teach for understanding is inhibited by fear of looking bad on the tests. Aggregate modes of testing don't really benefit classroom teachers or individual students. Paper and pencil quantitative tests do not get at many of the wider goals of schooling.

The development of alternative means of assessment of student learning can become a natural source of school-university collaboration, joining the expertise of university scholars to the wisdom of classroom teachers. Researchers have pioneered many innovative assessment procedures to study the nature of learning, but few have found their way into use by teachers. Conversely, teachers have always engaged in informal methods for assessing learning that have not been carefully studied or widely shared. Expert teachers are superb diagnosticians. Furthermore, there are traditions to consult, including the child study movement and the efforts to document children's work as a source of insight about their learning. Contemporary experiments also are underway to try out innovative forms of large-scale assessment, using complex cognitive tasks, group problem-solving exercises, holistically scored written assignments, computer simulations, reliance on portfolios of student materials, and other means. A quiet renaissance is gathering momentum across the country that Professional Development Schools can draw on and contribute to.

We believe the time is ripe for such experimentation. Psychometric experts are uneasy about the evident problems with standardized tests. Teachers are unhappy over the increase in testing that does not help them with instruction. And the public is willing to accept professional leadership that seeks to "build a better mousetrap." Traditional notions that regarded basic skills as the necessary foundation for advanced learning are giving way to more ambitious teaching goals and methods for all children. Teaching for understanding no longer appears as an advanced goal for a select few but as the basic aim of education for all. Consequently, as teachers work to develop new teaching methods and curricular conceptions, they also must experiment with consonant forms of assessment. We need Professional Development Schools as sites for such experiments.

Professional forms of responsibility: standards setting

In our society we have come to rely on professional authority and responsibility across a range of vital human services. Underlying professional authority is both a claim and a compact. The claim is that specialized knowledge acquired through years of formal training and experience is necessary to effective practice. The compact—between the public and the profession—is that a measure of autonomy will be given in exchange for the obligation to set and enforce standards of practice. The ethical touchstone of those standards is the client's welfare.

As a sole mode of organizing and conferring authority, professionalism is open to abuse. But in practices such as teaching, professionalism is a necessary complement to public, external forms of authority that operate through regulation and law, bureaucratic procedures, or client choice.

There is an irreducible kernel of professional discretion in teaching that must be cultivated, not constrained. Teachers must have a free hand in the key decisions that go into making a classroom a learning community. Good schools ought to enjoy a parallel autonomy. Teachers as a profession and as school faculties must engage in standards-setting efforts that direct their work and build public confidence.

What's critical is to paint a vision of alternating responsibility and accountability. It is crucial to suggest (1) not all professionals are held accountable in the way teachers are, but (2) all professionals must strike a bargain with society. Professional Development Schools are potential sites for exploring new kinds of the bargain.

Measurement of results alone cannot provide adequate direction for practice nor information to the public. We need Professional

Development Schools to begin developing professional standards based on practice that, together with assessments based on test results, more faithfully reflect our aims.

Most professions develop some assessment procedures based on "outcomes"—hospital-based chart reviews and audits in medicine, for example—but they do not rely exclusively on such evidence to evaluate practice. Rather, knowledge that informs practice is represented in standards that provide the best available guidance. In complex kinds of practice such as teaching, outcomes alone are an insufficient guide because outcomes are multiple, they trade off in complex ways, they unfold slowly, and many of the most important are not measurable. Further, professionals do not control all the factors affecting outcomes, and the state of knowledge is imperfect and cannot guarantee success in all cases.

Educators have not worked out ways and means to articulate principles that represent professional consensus on best practice. That is one reason why outcome measures such as quantitative tests dominate and distort public discourse on education. In medicine, the outcome, "The operation was a success, but the patient died," is not necessarily deemed outrageous. Standards exist by which it can be ascertained that (1) the decision to operate was justified, and (2) all due skill was exercised in the operation itself. In education, too, standards should be grounded not only in review of results but in judgments made about practice.

Further, the standards-setting task must be joined with the mission of educating teachers. Standards are communicated through the ways a profession socializes its new members. In teaching, however, entry to the work does not go through stages, it is not selective, and it is lacking in the powerful initiation ceremonies, rituals, and ordeals that commit novices to professionalism. Furthermore, because everyone in our society has spent literally thousands of hours observing conventional teaching, beliefs about teaching are exceptionally resistant to change. The conservative bias built into the entering teacher tends to perpetuate conventional patterns of practice.

Teacher educators have long recognized that they must help teacher education students break out of their conventions about teaching as part of the effort to improve teaching and learning. While this process can begin in the university, it must be carried

through in practice. The novice's first years in teaching should expose her to norms of conduct and standards of practice. Professional Development Schools should be places where such standards are consciously developed and conveyed to new teachers.

We're trying to inculcate teachers with a new set of social ideals. And more: Give them more experience in how you live these out. That has implications for how you organize teacher education's courses and credits.

Some participants at our seminars stressed the value of setting standards through local school deliberations. For example, standards may rise out of consideration of local problems and issues of teaching within particular schools. As school faculties engage in problem-setting and problem-solving, in the observation of teaching, and in the study of student learning, they will begin to articulate standards and principles.

The range of practice for which standards might be established is extremely broad. Standards might refer to technical practices—principles for teaching writing in the elementary grades, for infusing inquiry into science teaching, for assessing student learning across the curriculum, for encouraging multiple approaches to the teaching of reading. Or standards might be set for social aspects of instruction—grouping practices within and between classrooms, equity in distributing opportunities to learn, ways to integrate special-needs children into regular classrooms, ways to capitalize on students' cultural pluralism. Also, standards might be established relating to professional responsibilities—norms for involving parents, for assuming schoolwide duties, for staying abreast of new approaches to instruction.

Other participants in our seminars suggested another source of professional standards. They argued that teachers should develop networks that supply connections across schools and that allow teachers to form broad professional identities and to gain

information and perspectives outside their immediate work environment. For example, many dedicated teachers participate actively in a variety of professional associations, including those associated with the disciplines. These issue authoritative guidance on educational aims and objectives, curriculum, assessment, and standards for good teaching, and they take stands on social and moral issues in education. Standards might also be profession-wide, articulated by associations that represent best practice in such areas as science and mathematics teaching, language arts, social studies, and other fields.

These are valuable complementary perspectives—inquiry and reflection on a school's own practice, and professional associations transcending the school. We would expect faculty in a Professional Development School to participate in networks and associations that promote high standards and that provide authoritative guidance. And we would expect them to bring these outside resources to bear on the particular problems and opportunities they encounter in their school.

Cultivating collaboration

A fourth guidepost around which to invent a Professional Development School's organization is to balance individual work with collaborative work. The very definition of a Professional Development School as a site where educators learn and inquire presumes a high degree of collaboration. Master teachers spend time observing novices teach and confer regularly with them. Novices closely observe veterans. Staff development becomes a regular, ongoing feature in the life of the school, rather than an infrequent add-on, so school faculties work together to provide mutual learning opportunities. Research is conducted in joint projects among university and school faculty. Common standards get forged out of sustained dialogue. A Professional Development School pursues its distinctive mission by organizing to ensure teamwork.

Translating this into practice is the most difficult challenge for organizational design. Teamwork is likely to disrupt traditional patterns of schooling and to violate well-established routines and the norm of teacher privacy. Many of our best teachers are jealous of their time and autonomy. They will need to be persuaded that the rewards for participating in creating true learning communities outweigh the burdens of collective responsibility.

I'm not interested in collegiality for its own sake. Rather, whom do you put teachers in touch with so they get better at their work?

The traditional pattern of isolated work has not served teaching well. Teacher expertise remains tacit and hidden behind the classroom door. Teachers have to wrestle privately with the many dilemmas they confront daily. Standards of practice cannot emerge because there are few opportunities to articulate and to ground them in the close, shared observation of teaching and learning. And novices receive only brief, limited opportunities to observe and be observed as part of their preparation.

This lamentable pattern persists because it seems a necessary response to a job that daily requires a small number of adults to manage a large number of students, not all of whom desire to be in school. Past efforts at formal collaborative arrangements have achieved only modest success. Some elementary schools rely on team teaching. Some middle schools have created interdisciplinary units that coordinate curriculum, student assignments, and teaching methods. But most teachers tolerate the bargain that exchanges isolation for the limited autonomy of the classroom.

Further, the brute fact of the clock—simply finding time for teachers to work together—is a big problem. Keeping school in the traditional manner absorbs all the time. Adding time has meant increasing school budgets to pay for work in the summer, on weekends, and after school. The requirement to allot more time for collegial work must be implemented as rearranging tasks and redefining roles so as to add time together to pursue shared purposes and activities. Unfortunately, new teaching positions introduced in the name of professionalism and collegiality often have produced more isolated work, not more teamwork, as "master" or "mentor" teachers have produced their own projects rather than working with other teachers. We must avoid simply adding new layers to the educational coral reef.

Seminar participants acknowledged that these are powerful, persistent tendencies that will be difficult to change. They

suggested that individual schools cultivate collaboration in a variety of ways:

- through changes in scheduling;
- by forming teams and workgroups;
- by creating teacher-leader positions designed to organize collaboration;
- by rewarding collaborative work in teacher evaluation systems;
- by using time-saving technologies for managerial and instructional tasks;
- by augmenting the faculty with people from outside the school, including university faculty and staff, community volunteers, and parents;
- by setting aside work time for thoughtful dialogue.

Reciprocity between the university and the school

Vital to the new organizational structure of the Professional Development School will be its partnership with the university. The university will bring human and material resources to the school. But the creation of real reciprocity is problematic.

If the university regards the Professional Development School only as another clinical setting or one more special project defined by the availability of external funds, the school will be unable to do its job. The Professional Development School needs to be seen as the major focus for the university's threefold mission of preparing teachers and administrators, serving as the research and development arm of the profession, and providing direct services to the schools, just as teaching hospitals assist in the training of physicians, conduct medical research, and provide high quality patient care. There are many dissimilarities between medicine and education, but the medical example—medical school faculty and hospital staff overlapping and interacting in many ways—is suggestive for Professional Development Schools.

We need the Professional Development School and the parity relationship because the university needs experienced, wise teachers to help us revise the curriculum of education studies. If we don't do that, the Professional Development School is only a clinical setting.

If there are difficulties in expanding the roles and responsibilities for schoolteachers, there are equal difficulties in engaging university faculty in working in the Professional Development School. As we have noted, status, rank, and money in modern research universities derive from research activities, not from sustained work in schools. In education schools, this means that the supervision of practice teachers is often relegated to graduate students and nontenured staff.

The university will have to change existing rules, roles, relationships, and reward systems for faculty who want to collaborate in the Professional Development School. This will be one aspect of a broad organizational change process that will ultimately reconfigure the university school of education.

Every box on the Professional Development School's organization chart should be drawn so as to create a permanent, long-term relationship with the university. Indicators of such a relationship would include the following:

- stable governance arrangements that all parties have agreed upon;
- permanent budget allocations;
- new positions that span institutional boundaries;
- thorough integration of faculty and staff between the university and the schools—university faculty working in the Professional Development School and schoolteachers and administrators teaching in the school of education;
- planning processes that set progress toward goals;

- creation of new reward and incentive structures in the university that encourage participation in Professional Development School activities; and
- recruitment of both school and university faculty who are committed to collaborative work.

Leadership and management in Professional Development Schools

This ambitious agenda underscores the importance of leadership. An unfortunate tendency has arisen within the current school reform movement. Moves to expand teacher roles and responsibilities are perceived as threatening administrators.

Talking about teachers and administrators as separate parties is self-destructive. Professional Development Schools need to have the strength of their conviction in the way they organize themselves. Their strongest conceptions of teaching and learning must drive the school structure.

Seminar participants stressed that administrators are indispensable to the creation of Professional Development Schools and that first and foremost they, too, are educators broadly responsible for the conduct of teaching and learning. Participants further agreed that the concept of leadership may be significantly redefined within the Professional Development School. No single model emerged.

On the one hand, many seminar participants expressed skepticism at "strong leader" imagery, arguing instead that leadership is a complex function diffused throughout an effective school. In this view, teachers are the leaders, and the aim of an able administrator is to encourage the emergence of many kinds of leadership on the part of many participants within the learning community. This "enabler" conception, they noted, demands great

skill and wisdom on the part of those charged with formal management responsibilities.

On the other hand, some participants advocated vesting authority in an administrator who works to secure and mobilize resources, to run interference politically for the school, to coordinate activities, and to manage the whole process of change. This second description sounds more like the traditional school principal. These two alternative notions are not necessarily incompatible, nor does either assume a particular organizational model. Rather, they speak to the range of functions, roles, and responsibilities that must be present in some form within a successful school.

Sharing is difficult. If it fails everyone will say, 'We tried it, and it didn't work.' We still need strong leaders, people who are moral, who have integrity, who care—people who won't let it fail. That is what empowerment means—helping people succeed.

The widespread dissatisfaction with traditional, bureaucratic forms of organization and management produced agreement among seminar participants that Professional Development Schools must be inventive and not bound by the past. As teachers must experiment with new forms of instruction, so must administrators experiment with new forms of organization, new approaches to leadership in support of ambitious teaching and learning. Here, as with learning and with inquiry, parallel processes come into play, beckoning teachers and administrators to invent freely.

Getting From Here to There

We argue for Professional Development Schools in a spirit of idealism about possibilities and realism about problems. We conclude this report in the same spirit, with some reflections about the process of getting from here to there. We cannot be specific or definitive. Starting a Professional Development School is not just a design process; it's also a negotiation process. It's a back-and-forth dialogue between people in a university and people in a school district, and between principles and actions.

DEFINITION: How can we design Professional Development Schools if we've never seen one?

You can translate the six principles into shared ideas about what you want in your place and then assess what (and whom) you've got to work with. We have set forth six principles not as a blueprint but as stimuli for local thought, dialogue, negotiation, and actions. We have in mind that implementation will be a process of "small tries" directed at cumulative effects over time.

One way to start would be for a group of school and university faculty to set up a schedule of regular meetings, classroom observations, and workshops to work through the implications of one or two principles. For instance: "How would we capitalize on the talents of teachers in Martin Luther King, Jr., Elementary School and Metropolitan State University to teach middle-grades reading and math for deep understanding? How would we capitalize on the knowledge that students bring from their community to make that learning more engaging? How would we involve university teacher preparation students in our experiments and our findings?" Small tries, concrete problems, shared values, high ambitions. This is the stuff of a Professional Development School.

If such efforts are sustained and faithful to the principles, those tries will result in a new and unique institution. Those local actions multiplied will produce a wide diversity of Professional Development Schools across the country.

Many questions will be answered only by experience. Hence it is important not only to start Professional Development Schools but also to open up local, regional, and national networks in which people begin talking together about what they're doing.

Around the Holmes Group consortium there are powerful insights on the matters embedded in the six principles. We can point to several schools committed to the principles of teaching for understanding in a learning community. We possess research on which to base inside-out transformation of conventional school instruction. But we need to hear each other's similar insights and examples of school practice, and to study the results of inquiry on our experiments.

The spread of these schools and the definition of their practice will hinge on the development of a broad, firmly grounded body of knowledge and experience that can be shared among people with a common interest in the simultaneous restructuring of schools and recasting of teacher education. Professional Development Schools will test new course and clinical work in the education of teachers, new school curriculum, new teaching practices, new research partnerships, and new formats for school administration, organization, and personnel relationships. In all of the above, the constructive uses of students' cultural diversity will be the defining characteristic—what gives the school its color and flavor.

INITIATIVE: Who should initiate Professional Development Schools?

The Professional Development Schools will work only if there is true reciprocity between school and university educators. If one party dominates, these schools may be successful in other respects, but they will fail to marry inquiry and practice. As long as a spirit of true reciprocity holds, Professional Development Schools can emerge at the initiative of a school, of a school district, of a university, or of a third party.

We expect some schools and school districts already active in school reform to link up with local universities. In other cases,

universities are starting conversations with schools and school districts. Elsewhere, political leaders—governors, legislators, school board members, and community leaders—may act as brokers between schools and universities. And in still other cases, parents and community groups will lobby for new schools and make matches between schools and universities. Other good prospects for collaboration include the American Federation of Teachers' "Professional Practice Schools," the National Education Association's "Mastery in Learning" network schools, and members of the Coalition of Essential Schools. All of these efforts parallel ours in most respects, and we are eager to work with them.

We reiterate that our principles are intended to lead to something entirely different—not the conventional, familiar forms of school-university involvement. Schools and school systems are asked regularly to accept student teachers, to take part in university research projects, and to serve as sites where new models of instruction are tested. Likewise, university faculty are often asked to help in schools. Professional Development Schools should not simply formalize these existing arrangements. These ad hoc arrangements are often productive, but they lack the coherence and duration necessary to have a sustained effect on teaching and learning. In many ways they add to the fragmentation of U.S. education. This is why we stress the importance of learning community and duration over time. Universities and schools should enter Professional Development School marriages only if both parties are committed to a long-term relationship.

Starting a Professional Development School is no small project. It projects big, ambitious goals on a number of fronts: rigorous conceptions of teaching and learning, relationships of parity among universities and schools, links between schools and their communities, new structures and methods of educating teachers and administrators, and new purposes and methods for school-based research. Doing all this will require hard-headed political calculation and skill in coalition-building. New ideas will meet a multitude of reasons why they can't be done. Overcoming the inherent inertia of established institutions will require patience and determination—as well as a broad base of political support.

No matter who extends the first invitation to plan a Professional Development School together, it seems important that eventually the coalition that develops around a Professional Development

School should be broadly based: business, policymakers, community organizations, social services agencies, and the like will need to be part of the action.

ARTS & SCIENCES: How can schools of education mobilize the commitment of other university faculty to Professional Development Schools?

The strongest incentive for collaboration occurs when faculty find problems they regard as intrinsically interesting and significant. It is fashionable, for example, for university faculty to complain about the level of preparation of students entering higher education. These complaints seldom are transformed into comprehensive, sustained efforts to discover what kind of preparation students need and how it might be given in elementary and secondary schools, even though individual faculty from the arts and sciences have often found the problems of learning in elementary and secondary schools intriguing and rewarding. A Professional Development School can increase the attractiveness of these problems to arts and sciences faculty by offering a focused opportunity in a setting committed to serious inquiry.

Many of the problems associated with learning academic content in elementary and secondary schools are similar to those in colleges and universities. Engaging an English professor in the experience of how elementary students understand poetry, for example, could have important pay-offs in that professor's teaching of undergraduate students. Engaging a physics professor in observing how young students form their basic conceptions of matter and energy could improve that professor's ability to communicate to college students.

REGULATIONS: How can we develop new practices in the face of regulatory, statutory, contractual, and procedural constraints?

Much of what Professional Development Schools undertake will be at odds with the apparatus of federal and state regulation—as well as with collective bargaining contracts and administrative rules of local districts. The designers of a Professional

Development School need to be open about these potential conflicts from the beginning. And they need to be firm about the basic rules that no public school can violate: the well-being and physical safety of students; the basic civil rights of parents, students, and staff; and the due process guarantees that apply to any public organization.

Beyond these conditions, we hope Professional Development Schools will be able to start from scratch and build the best possible learning communities consistent with the principles outlined here. We anticipate two broad strategies for confronting the inevitable conflicts with existing laws, regulations, and contracts. The first strategy is rule-by-rule waivers, in which a Professional Development School asks for explicit waivers from existing statutes, regulations, and contracts when they conflict with sound instructional practice. States and localities might give a Professional Development School preference in granting waivers, but the preference must be earned by thoughtful justification and good performance.

A second, more ambitious approach is to treat a Professional Development School as a "regulatory free zone," in which all but the elemental guarantees of health, safety, due process, and civil rights are suspended and the school is free to create an alternative set of structures. This regulation-free strategy requires bold vision on the part of local school officials and extensive cooperation among state, local, and federal officials. It requires the development of alternative mechanisms for resolving collective bargaining issues, such as the "education trust agreements" that some school districts and teachers' associations are adopting. It also requires a commitment on the part of school and university faculty to develop broad-based community support and involvement, so that freedom from legal and contractual constraints is balanced by responsibility to the public.

Several examples of both strategies are already being tried at the state and local levels. There is high interest in many localities, some states, and among many federal policymakers in experiments with deregulation of schools. Professional Development Schools should capitalize on this interest and offer themselves as experimental sites for responsible deregulation.

COSTS: How much will it cost, and where will we find the money to initiate and sustain a Professional Development School?

A Professional Development School will require extra resources both for start-up costs—planning, staff development, new technology, capital improvements—and operating costs—primarily additional teachers. For example, a Professional Development School may want to involve curriculum and instruction faculty—those with expertise in subject matter disciplines—on a weekly basis. From time to time, they might want to involve others, perhaps faculty with a specialty in child development, in counseling, or in school organization. For an elementary Professional Development School of roughly 400 students and fifteen teachers, these university involvements might reasonably add as many as two FTE faculty members—part-time assignments for several university professors. In a high school more would be needed.

Some of these costs can be met by reallocating resources within the university and the school district. For instance, existing state and local expenditures for staff development can be used to advance the Professional Development School faculty's priorities. The school of education can allocate portions of some faculty members' time to work in the Professional Development School. One university that has started several Professional Development Schools puts into an elementary school six faculty participants one-third time on a regular basis. In a high school, the university would also contribute in-school participation by arts and sciences faculty.

A substantial share of the additional costs will have to be raised from external sources. Some states already have made financial commitments to school-university partnerships of various kinds. Businesses and philanthropic organizations are showing increasing interest in these kinds of arrangements. If universities and schools show evidence of a strong and detailed commitment to these partnerships, additional resources may be available. The burden for making this case lies, at least initially, with educators.

Professional Development Schools will provide environments for teachers and students that are richer in resources than many other schools in the same districts. These resource disparities will grow out of necessary investments in new curriculum, additional

staff, building modifications, and the like. Recognizing their greater resources, faculty in a Professional Development School should consider that theirs is a school for the development of professionalism among all the teachers in the district, and that they have a responsibility to help spread what they learn to other schools, using all the formal and informal communication channels of the district.

A number of strategies can be used. Faculty can work with district curriculum and professional development staff or a teacher's center to extend new curriculum ideas to other schools. Teachers from other schools could receive some portion of their staff development activities in Professional Development Schools. Professional Development Schools can act as magnets for recruitment into districts for aspiring teachers from high quality university programs. It is possible, in other words, to use the resources of Professional Development Schools to benefit schools more broadly.

CHOICE: Should a Professional Development School experiment with parent, student, and teacher choice?

Throughout our discussions in the Tomorrow's Schools seminars there was a running dialogue on the issue of parent and teacher choice. One side of this dialogue said that students learn best, parents are more satisfied, and teachers teach to their maximum potential when they can voluntarily choose schools. Choice builds strong learning communities, proponents say. Others argue that introducing choice to a Professional Development School will exclude students, parents, and teachers who lack the knowledge, influence, or resources to choose to their advantage. For instance, a single, working parent without a car may be unable to take advantage of a school on the other side of town. In systems based on choice, the rich get richer and the poor get poorer, say the critics. There is a growing research literature around these arguments that is too complex to summarize here.

Our conclusion from observation, reading this literature, and discussing the issue with seminar participants, is that if designers of a Professional Development School want to deal with the issue of choice, they should do so experimentally. A Professional Development School could actively incorporate choice into its

design, and carefully monitor the relationship to the operation and effects of the instructional program. A Professional Development School offering choice will have the burden of demonstrating whether choice is compatible with equity—which will mean getting involved with setting district-wide policy. Other Professional Development Schools—preferably in the same locales as those experimenting with choice—could attempt to operate within the constraints of existing pupil and teacher assignment systems. Then, as experience accumulates, there could be an overall assessment of the issue of choice among practitioners and policymakers involved in Professional Development Schools.

MODEL? Will the Professional Development School experience generalize to other school settings?

Our intention is to develop and demonstrate practices that can be adapted to schools with students representing a broad range of backgrounds. In this sense, the experience of a Professional Development School should "generalize" to other public schools, although its practices may well challenge their outer limits.

In other respects, however, a Professional Development School will be different from regular public schools in ways that won't generalize. A Professional Development School will, for example, have research and clinical education components not present in regular schools. Experimentation will sometimes require start-up funds or venture capital not available to other schools. As we noted, a Professional Development School may have to operate under different legal and procedural requirements. In these respects, and possibly others, Professional Development Schools will have to be different from other schools.

On the other hand, designers and faculty in a Professional Development School must think and talk routinely about the general significance of their work, to avoid becoming—and being perceived as—a hothouse of little relevance to ordinary teachers. Close working relationships between a Professional Development School and other schools could extend some practices of the Professional Development School into others and propagate new approaches in widening circles. A Professional Development

School could be a center of a district-wide network for the improvement of teaching and learning.

Further, some Professional Development School faculty can become actively involved in state- and local-level policymaking; they might give advice, make the school open to school board members, legislators, and community leaders, and participate in broader district and state discussions of curriculum standards, testing practices, certification requirements, and the like. Their voices would help shape policy and practice in other schools. Without such efforts, Professional Development Schools run the risk of losing touch with the schools they are created to influence.

BURNOUT: How will the Professional Development School prevent overloaded teachers from burning out and quitting?

A Professional Development School will be based on new, ambitious conceptions of teaching and learning that are not yet fully understood. Teaching and learning for understanding implies (1) that teachers and teacher educators are deeply immersed in their subject matter; (2) that they understand and explore alternative conceptions of content and pedagogy; (3) that they shape each other's conceptions of good practice through inquiry and supervision; (4) that they operate at the "outer envelope" of knowledge, exploring the new rather than practicing the relatively safe; and (5) that their responsibilities are broadened to include inquiry, participation in professional development activities, and clinical supervision of novices.

A Professional Development School will also be based on more ambitious conceptions of the role that schools can play in the lives of children and the broader community. It will capitalize more systematically on the resources of the community. Especially a school that serves a high proportion of poor students will develop strong working relationships with community service agencies. The school may be called upon to perform a number of tasks—child care, health screening, etc.—as conditions of families and the community change.

If the net effect of these new conceptions for Professional Development Schools is simply to make the work of teaching more stressful than it already is, then they will certainly fail. One of the main reasons that serious educational innovations in the

past have had little impact on practice is that they have relied largely on the energy of a few heroic educators.

Professional Development Schools will become a long-term force for the improvement of teaching and learning to the extent that they release and focus the talent, energy, and enthusiasm of excellent, ambitious teachers, teacher educators, and administrators. To accomplish these ends, our principles of design have called for:

- innovation and flexibility in the teacher's job definition;
- new ways of organizing and allocating responsibility among teachers, administrators, and university educators;
- new ways of allocating budgets and new sources of funds;
- more efficient use of existing resources, including administrative overhead, to support instruction;
- more time for reflective professional conversation;
- new formats for assessing students and evaluating teachers;
- encouragement, resources, and collaboration with school and university colleagues to think through, work out, test, and revise *teachers'* own best ideas about teaching and to solve their most frustrating problems.

CAPACITY: How can a university build enough Professional Development Schools to provide all their student teachers with this superior clinical experience?

In the very short term, few universities will be able to accommodate all their teacher preparation students in a Professional Development School. We have stressed the need to develop high quality settings and to focus the time and energy necessary to create an environment of community, inquiry, and professionalism. We think that the issues of quality must be addressed first in a setting of whatever scale is manageable for the university-school partners.

In the longer term, we believe it is possible for every new teacher to be exposed to a sustained period of supervised clinical practice in a Professional Development School, in much the same way that every person preparing to be a physician is required to perform an internship and residency in a teaching hospital. As

school and university faculty learn how to invent these new institutions, Professional Development School partnerships can gradually phase in enough additional sites to accommodate all the students in large programs. It will take time to develop these settings for supervised practice and to make them financially and politically viable. The effort will justify itself as the quality of teaching and learning improves.

For the long haul

There ought to be an essential continuity between good learning from preschool through graduate school. Our aim is not to turn grade school into a university seminar. The aim is to give all children the power to talk and act in the world, to be shapers of powerful meanings here and now, as well as in the future. These are traits of mind and habits of heart, qualities of intellect and character that mark the effective citizen as well as the scholar. They will not be learned well unless we learn how to make schools successful democratic learning communities—places in which all children participate.

Creating such communities is the essential task. It will take a long time. That is why we in the Holmes Group are in for the long haul. And it can only be done, in the main, by teachers, administrators, and teacher educators—although, as matters stand, they will need a great deal of help. Any single item on our agenda will be very difficult to accomplish. Taken together, the complete package we propose is formidable indeed. But the sense that we are moving in the right direction will sustain us in the struggle. The key to success will be the quality and endurance of the local coalitions.

A true learning community is always a site-built, intensely local affair. It can't be engineered from without. The dialogue that matters most is not in the texts, as essential as they are; it's what comes alive in the classroom community. Teachers mediate between the larger worlds of the disciplines and the lives of their students. They make the essential conversation. No wonder the Holmes Group is determined that they become truly educated.

Teaching for understanding for everybody's children therefore requires:

1. A transformation of teaching, so that teachers become practical intellectuals, able to help all students make knowledge and meaning in a community of learning.
2. A transformation of schools so that teachers and administrators get support to create learning communities.
3. A broadening of educational research to include partnerships of professors, administrators, and teachers investigating questions that are vital for the improvement of teaching and learning in particular schools.
4. A transformation of professional education so that school and university faculty learn how to take part in, criticize, and create learning communities for all students.

Plainly these changes are all intertwined. This, among other reasons we set forth in this volume, is why we urge a new institutional invention, sustained over time: the Professional Development School.

APPENDIX A
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Seminar 1: Models of Learning, Models of Schooling
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Seminar 2: Conceptions of Teachers' Work and the Organization of Schools
September 22–23, 1988
East Lansing, Michigan

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Seminar 3: Diversity, Equity, and the Organization of Schools
September 25–26, 1988
East Lansing, Michigan

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Seminar 4: Family, Community, and Schooling
October 21–22, 1988
East Lansing, Michigan

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Seminar 5: Conceptions of Restructured Schools
November 18–19, 1988
East Lansing, Michigan

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Seminar 6: New Models for the Role and Training of the Leadership for Tomorrow's Schools
December 9–10, 1988
East Lansing, Michigan

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Policy Perspectives on School Reform
April 14–15, 1989
Rutgers University Graduate School of Education
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APPENDIX B
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Alaska, University of
Arizona State University
Arkansas, University of
Auburn University
Bank Street College of Education
Baylor University
California-Berkeley, University of
California-Davis, University of
Catholic University of America
Chicago, University of
Cincinnati, University of
Clark University
Colorado, University of
Colorado State University
Connecticut, University of
Delaware, University of
Duke University
Emory University
Fordham University
George Mason University
Georgia State University
Hampton University
Harvard University
Hawaii, University of
Houston, University of
Howard University
Idaho, University of
Illinois-Chicago, University of
Illinois-Urbana Champaign, University of
Iowa, University of
Iowa State University
Kansas, University of
Kansas State University
Kent State University
Kentucky, University of
Lehigh University
Louisiana State University
Louisville, University of
Maine, University of
Maryland, University of
Massachusetts-Amherst, University of
Michigan, University of
Michigan State University
Minnesota, University of
Mississippi, University of
Mississippi State University
Missouri-Columbia, University of
Missouri-Kansas City, University of
Missouri-St. Louis, University of
Nebraska, University of
Nevada, University of
New Hampshire, University of
New Mexico, University of
New Mexico State University
New York University

North Carolina A&T, University of
North Carolina-Chapel Hill, University of
North Dakota, University of
Ohio, University of
Ohio State University
Oklahoma, University of
Oklahoma State University
Oregon, University of
Oregon State University
Pennsylvania, University of
Pittsburgh, University of
Prairie View A & M University
Purdue University
Rhode Island, University of
Rochester, University of
Rutgers University
South Carolina, University of
South Dakota, University of
South Florida, University of
Southern California, University of
Stanford University
SUNY-Albany
SUNY-Buffalo
Syracuse University
Teachers College, Columbia
Temple University
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Texas A&M University
Texas Tech University
Texas-Austin, University of
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Vermont, University of
Virginia, University of
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The Executive Board of the Holmes Group, as of January 1990, consisted of those persons whose names appear on the signatory page